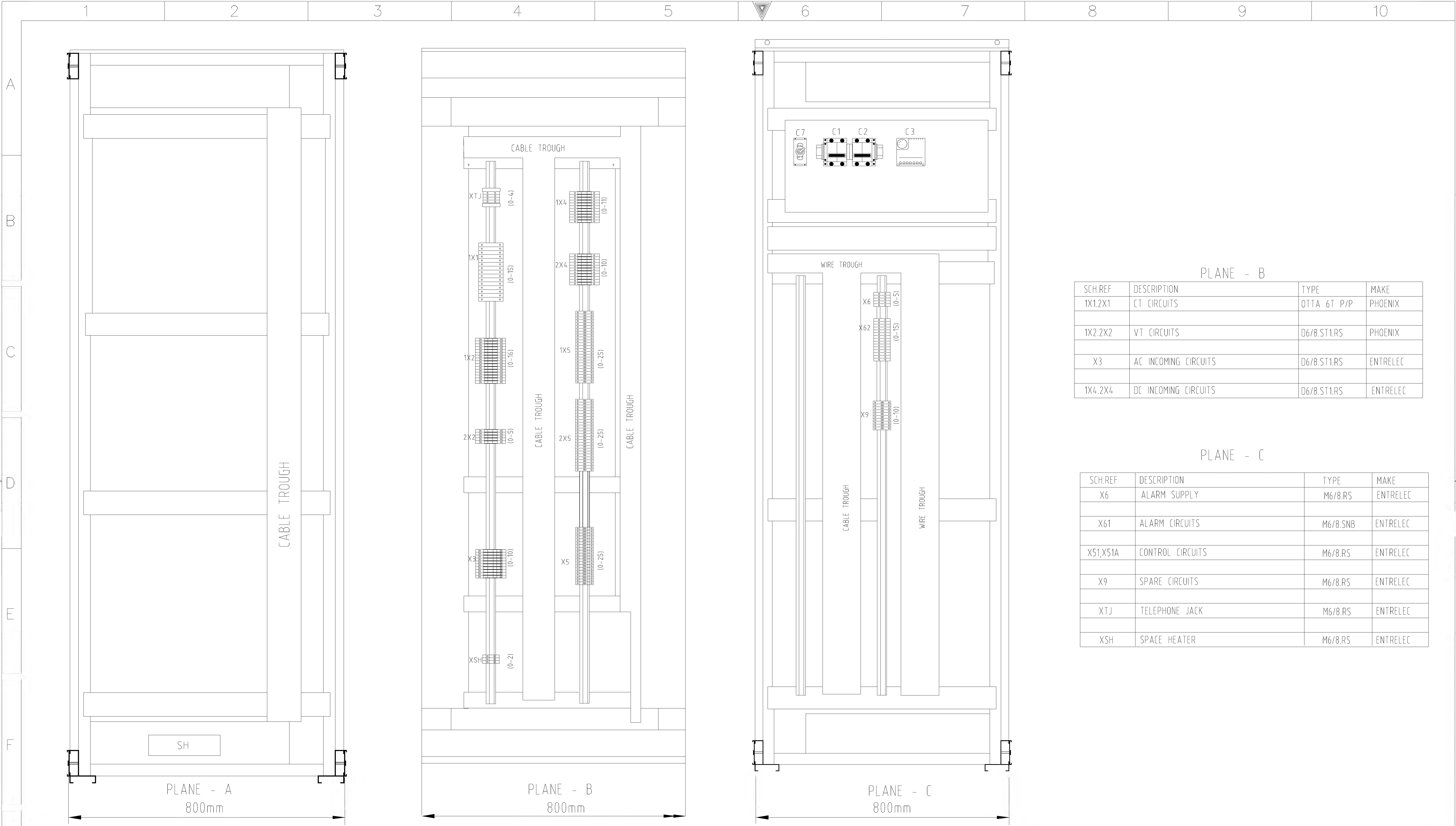


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|   | 1  | 2 | 3 | 4 | 5 | 6 | 7 |
| A | <div><div></div><div><div>POWER SYSTEMS NETWORK MANAGEMENT</div><div>PROTECTION AND SUBSTATION AUTOMATION SYSTEMS</div><div>WBS NO: S-13656</div></div></div>                                       |   |   |   |   |   |   |
| B |  |   |   |   |   |   |   |
| C | <div>CONTRACTOR : ABB Contracting Company</div> <div>CLIENT : National Grid sa</div> <div>PROJECT : CONSTRUCTION OF NEW 132/13.8kV SS 8709</div> <div>SUBSTATION : S/S 8709</div> <div>CONTRACT NO. : 11131113/00</div> <div>TITLE : Assembly Drawing - +CBP1 [CAPACITOR BANK-1]</div> |   |   |   |   |   |   |
| D |  |   |   |   |   |   |   |
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| G | AS-BUILT BY _____ DATE _____ |       | CONTRACT NO. 11131113/00 | JOB ORDER NO. S-13656                        | COVER SHEET                          |  |
|   | 01                           | 13 48 | AS MANUFACTURED          | DRAWN BY RIZ CHECKED BY KVR                  | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  |
|   | 00                           | 13 04 | FOR APPROVAL             | DATE STARTED 24.01.2013 DATE COMPLETED _____ | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |
|   | REV. NO.                     | DATE  | DESCRIPTION              | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC         | RIYADH SAUDI ARABIA                  |  |







PLANE - B

| SCH.REF | DESCRIPTION          | TYPE        | MAKE     |
|---------|----------------------|-------------|----------|
| 1X1.2X1 | CT CIRCUITS          | OTTA 6T P/P | PHOENIX  |
| 1X2.2X2 | VT CIRCUITS          | D6/8.ST1.RS | PHOENIX  |
| X3      | AC INCOMING CIRCUITS | D6/8.ST1.RS | ENTRELEC |
| 1X4.2X4 | DC INCOMING CIRCUITS | D6/8.ST1.RS | ENTRELEC |

PLANE - C

| SCH.REF  | DESCRIPTION      | TYPE     | MAKE     |
|----------|------------------|----------|----------|
| X6       | ALARM SUPPLY     | M6/8.RS  | ENTRELEC |
| X61      | ALARM CIRCUITS   | M6/8.SNB | ENTRELEC |
| X51,X51A | CONTROL CIRCUITS | M6/8.RS  | ENTRELEC |
| X9       | SPARE CIRCUITS   | M6/8.RS  | ENTRELEC |
| XTJ      | TELEPHONE JACK   | M6/8.RS  | ENTRELEC |
| XSH      | SPACE HEATER     | M6/8.RS  | ENTRELEC |

|                              |  |  |                          |  |                       |  |                                      |                |                          |                             |             |
|------------------------------|--|--|--------------------------|--|-----------------------|--|--------------------------------------|----------------|--------------------------|-----------------------------|-------------|
| AS-BUILT BY _____ DATE _____ |  |  | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656 |  | ASSEMBLY DRAWING                     |                |                          |                             |             |
|                              |  |  | DRAWN BY RIZ             |  | CHECKED BY KVR        |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |                |                          |                             |             |
| 01 13 48                     |  |  | DATE STARTED 24.01.2013  |  | DATE COMPLETED        |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |                |                          |                             |             |
| 00 13 04                     |  |  |                          |  |                       |  | RIYADH SAUDI ARABIA                  |                |                          |                             |             |
| REV. NO. DATE DESCRIPTION    |  |  | OPRG. DEPT. CTPD         |  | ENG. DEPT. AUT-PSAC   |  | INDEX P                              | PLANT NO. C421 | DRAWING NUMBER CD-322951 | SHEET NO. SHT G02 CONT. G03 | REV. NO. 01 |



الشركة الوطنية لنقل الكهرباء

| SHEET NO. |       | REV. NO. |
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| SHT       | CONT. |          |
| G02       | G03   | 01       |

DMS

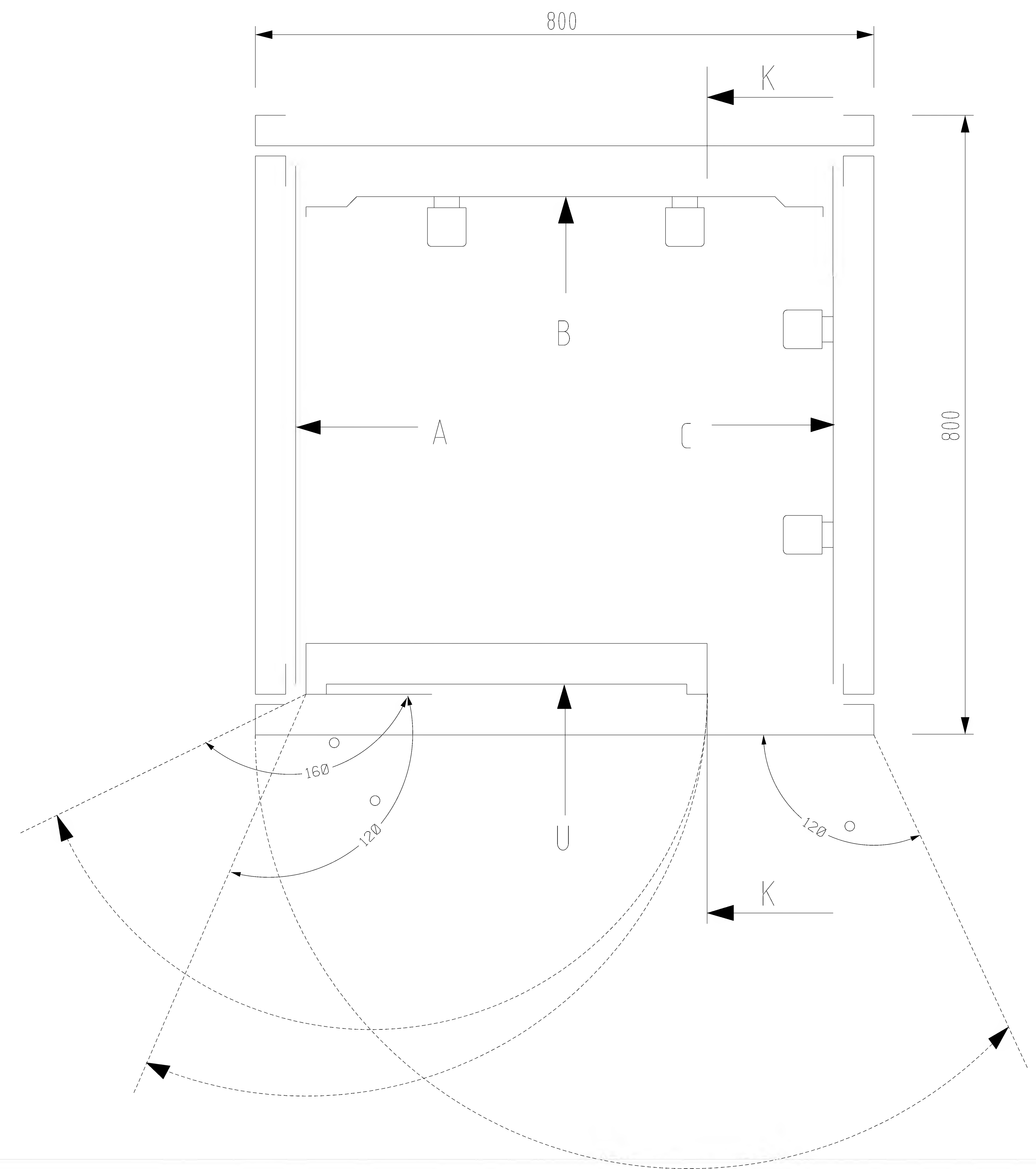
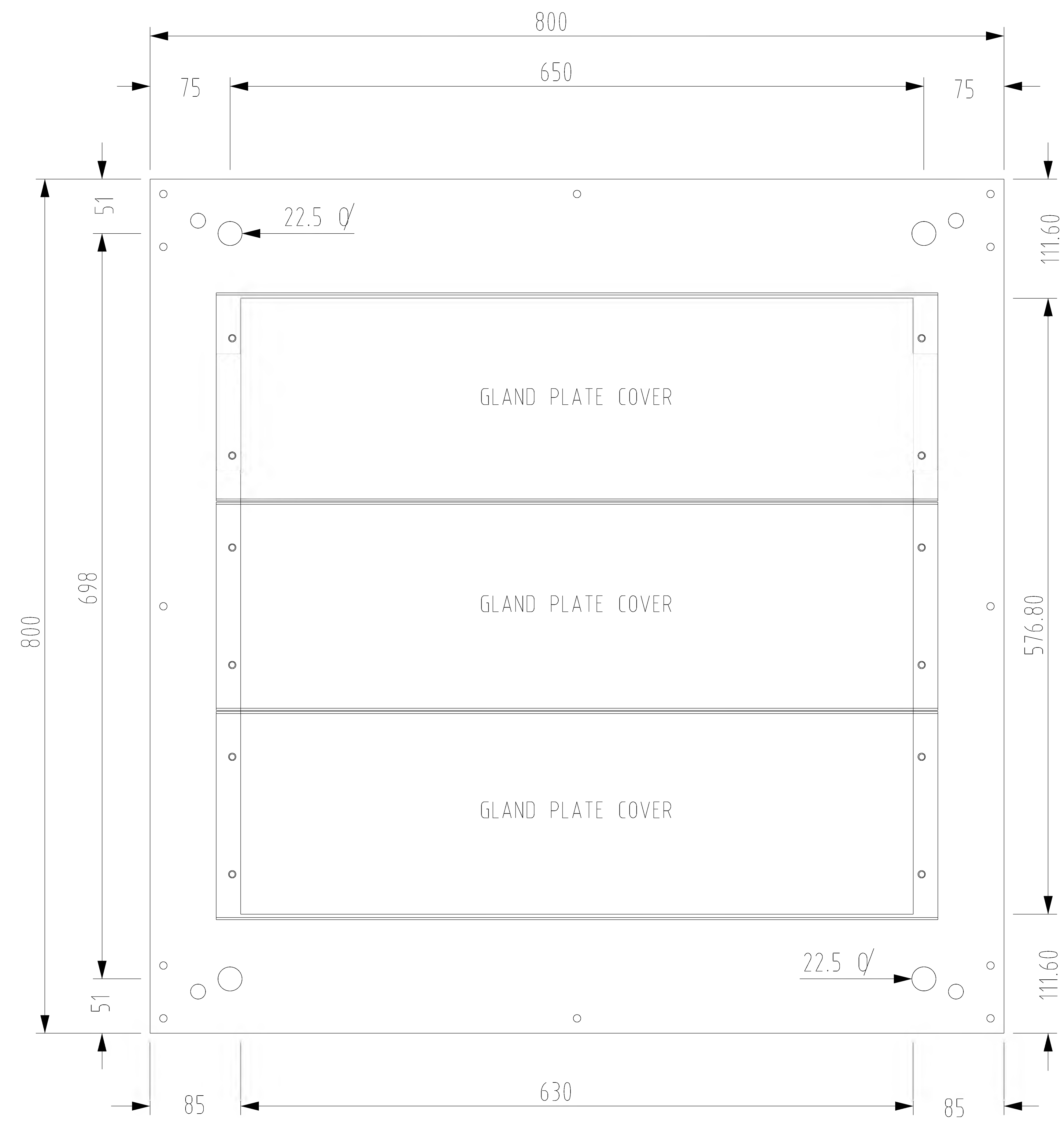
VECTOR

NG/D2-D (2012/01)

NGD200

BASE PLATE/  
FOUNDATION

PLAN



AS-BUILT BY \_\_\_\_\_ DATE \_\_\_\_\_ CONTRACT NO. 11131113/00 JOB ORDER NO. S-13656

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|----------|-------|-----------------|
| 01       | 13 48 | AS MANUFACTURED |
| 00       | 13 04 | FOR APPROVAL    |
| REV. NO. | DATE  | DESCRIPTION     |

|                         |                     |
|-------------------------|---------------------|
| DRAWN BY RIZ            | CHECKED BY KVR      |
| DATE STARTED 24.01.2013 | DATE COMPLETED      |
| OPRG. DEPT. CTPD        | ENG. DEPT. AUT-PSAC |

ASSEMBLY DRAWING  
13.8kV CAPACITOR BANK-1 PROT. PANEL  
S/S 8709-132/13.8KV IN AL-KHARJ CITY  
RIYADH SAUDI ARABIA

الشركة الوطنية لنقل الكهرباء  
National Grid sa

|       |           |                |           |          |
|-------|-----------|----------------|-----------|----------|
| INDEX | PLANT NO. | DRAWING NUMBER | SHEET NO. | REV. NO. |
| P     | C421      | CD-322951      | G03G04    | 01       |



MANUFACTURING LABEL



ABB Automation Co.Ltd.

|                       |                              |
|-----------------------|------------------------------|
| PROJECT :             | National Grid SA<br>S/S 8709 |
| ORDER REFERENCE :     | 2875 RF S13656               |
| YEAR OF MANUFACTURE : | 2013                         |
| PANEL NO. :           | +CBP1                        |
| DRAWING NO. :         | S13656-CD-323952             |

MADE IN THE KINGDOM OF SAUDI ARABIA

|                              |                          |                       |
|------------------------------|--------------------------|-----------------------|
| AS-BUILT BY _____ DATE _____ | CONTRACT NO. 11131113/00 | JOB ORDER NO. S-13656 |
|------------------------------|--------------------------|-----------------------|

|             |       |                 |   |
|-------------|-------|-----------------|---|
| 01          | 13 48 | AS MANUFACTURED | DRAWN BY <u>RIZ</u> CHECKED BY <u>KVR</u>           |
| 00          | 13 04 | FOR APPROVAL    | DATE STARTED <u>24.01.2013</u> DATE COMPLETED _____ |
| REV.<br>NO. | DATE  | DESCRIPTION     | ORIG. DEPT. <u>CTPD</u> ENG. DEPT. <u>AUT-PSAC</u>  |

ASSEMBLY DRAWING

13.8kV CAPACITOR BANK-1 PROT. PANEL

S/S 8709-132/13.8KV IN AL-KHARJ CITY

RIYADH

SAUDI ARABIA

| INDEX | PLANT NO. | DRAWING NUMBER | SHEET NO.  |             | REV. NO. |
|-------|-----------|----------------|------------|-------------|----------|
| -     | C421      | CD-322951      | SHT<br>G04 | CONT.<br>00 | 01       |





NG/D2-D (2012/01)

DMS

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| A                            |   |       | POWER SYSTEMS NETWORK MANAGEMENT<br>PROTECTION AND SUBSTATION AUTOMATION SYSTEMS<br>WBS NO: S-13656 |   |                         |   |                                     | ABB AUTOMATION COMPANY LTD.,<br>414, AL-KHARJ ROAD<br>SECOND INDUSTRIAL CITY<br>RIYADH-11383 K.S.A |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
| B                            |  |       |   |   |                         |   |                                     |  |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
| C                            | CONTRACTOR : ABB Contracting Company   |       |   |   |                         |   |                                     |  |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
|                              | CLIENT : National Grid sa  |       |   |   |                         |   |                                     |  |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
| D                            | PROJECT : CONSTRUCTION OF NEW 132/13.8kV SS 8709 IN AL-KHARJ CITY  |       |   |   |                         |   |                                     |  |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
|                              | SUBSTATION : S/S 8709  |       |   |   |                         |   |                                     |  |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
| E                            | CONTRACT NO. : 11131113/00   |       |   |   |                         |   |                                     |  |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
|                              | TITLE : LIST OF APPARATUS - +CBP1 [SHUNT CAPACITOR BANK1]  |       |   |   |                         |   |                                     |  |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
| F                            |  |       |   |   |                         |   |                                     |  |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
| G                            | <table><tr><td colspan="3">AS-BUILT BY _____ DATE _____</td><td colspan="2">CONTRACT NO. 11131113/00</td><td colspan="2">JOB ORDER NO. S-13656</td><td colspan="3">COVER SHEET</td><td colspan="2"><div>الشركة الوطنية لنقل الكهرباء</div><div> نقل الكهرباء<br/>National Grid sa</div></td></tr><tr><td></td><td></td><td></td><td colspan="2">DRAWN BY RIZ</td><td colspan="2">CHECKED BY KVR</td><td colspan="3">13.8kV CAPACITOR BANK-1 PROT. PANEL</td><td colspan="2"></td></tr><tr><td></td><td>01</td><td>13 48</td><td colspan="2">AS MANUFACTURED</td><td colspan="2">DATE STARTED 24.01.2013</td><td colspan="2">DATE COMPLETED</td><td colspan="3">S/S 8709-132/13.8KV IN AL-KHARJ CITY</td></tr><tr><td></td><td>00</td><td>13 04</td><td colspan="2">FOR APPROVAL</td><td colspan="2">OPRG. DEPT. CTPD</td><td colspan="2">ENG. DEPT. AUT-PSAC</td><td colspan="3">RIYADH SAUDI ARABIA</td></tr><tr><td></td><td>REV. NO.</td><td>DATE</td><td colspan="2">DESCRIPTION</td><td colspan="2"></td><td colspan="2"></td><td colspan="3">INDEX PLANT NO. DRAWING NUMBER SHEET NO. REV. NO.</td></tr><tr><td></td><td></td><td></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="3">- C421 CD-322951 L00 L01 01</td></tr></table> |       |   |   |                         |   |                                     |  |   |  | AS-BUILT BY _____ DATE _____ |  |  | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656 |  | COVER SHEET |  |  | <div>الشركة الوطنية لنقل الكهرباء</div> <div> نقل الكهرباء<br/>National Grid sa</div> |  |  |  |  | DRAWN BY RIZ |  | CHECKED BY KVR |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL |  |  |  |  |  | 01 | 13 48 | AS MANUFACTURED |  | DATE STARTED 24.01.2013 |  | DATE COMPLETED |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |  |  | 00 | 13 04 | FOR APPROVAL |  | OPRG. DEPT. CTPD |  | ENG. DEPT. AUT-PSAC |  | RIYADH SAUDI ARABIA |  |  |  | REV. NO. | DATE | DESCRIPTION |  |  |  |  |  | INDEX PLANT NO. DRAWING NUMBER SHEET NO. REV. NO. |  |  |  |  |  |  |  |  |  |  |  | - C421 CD-322951 L00 L01 01 |  |  |
| AS-BUILT BY _____ DATE _____ |  |       | CONTRACT NO. 11131113/00  |   | JOB ORDER NO. S-13656   |   | COVER SHEET                         |  |   | <div>الشركة الوطنية لنقل الكهرباء</div> <div> نقل الكهرباء<br/>National Grid sa</div> |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
|                              |  |       | DRAWN BY RIZ  |   | CHECKED BY KVR          |   | 13.8kV CAPACITOR BANK-1 PROT. PANEL |  |   |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
|                              | 01   | 13 48 | AS MANUFACTURED   |   | DATE STARTED 24.01.2013 |   | DATE COMPLETED                      |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY              |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
|                              | 00   | 13 04 | FOR APPROVAL  |   | OPRG. DEPT. CTPD        |   | ENG. DEPT. AUT-PSAC                 |  | RIYADH SAUDI ARABIA                               |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
|                              | REV. NO.   | DATE  | DESCRIPTION   |   |                         |   |                                     |  | INDEX PLANT NO. DRAWING NUMBER SHEET NO. REV. NO. |  |                              |  |  |                          |  |                       |  |             |  |  |  |  |  |  |  |              |  |                |  |                                     |  |  |  |  |  |    |       |                 |  |                         |  |                |  |                                      |  |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |  |          |      |             |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                             |  |  |
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NG/D2-D (2012/01)

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AS-BUILT BY \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACT NO. 11131113/00


JOB ORDER NO. S-13656

13.8kV CAPACITOR BANK-1 PROT. PANEL

S/S 8709-132/13.8KV IN AL-KHARJ CITY

RIYADH SAUDI ARABIA

الشركة الوطنية لنقل الكهرباء

 **نقل الكهرباء**  
National Grid sa

INDEX

PLANT NO.

DRAWING NUMBER

SHEET NO.

REV. NO.

P

C421

CD-322951

L01

L02

01

AS MANUFACTURED

FOR APPROVAL

DESCRIPTION

DRAWN BY RIZ

CHECKED BY KVR

DATE STARTED 24.01.2013

DATE COMPLETED

OPRG. DEPT. CTPD

ENG. DEPT. AUT-PSAC

NG/D2-D (2012/01)

DMS

VECTOR

NGD200

|   |                              |               |                          |   |  |         |                                      |           |                |                      |           |
|---|------------------------------|---------------|--------------------------|---|--|---------|--------------------------------------|-----------|----------------|----------------------|-----------|
|   | 1                            | 2             | 3                        | 4   | 5  | 6       | 7                                    | 8         | 9              | 10                   |           |
| A |                              |               |                          |   |  |         |                                      |           |                |                      |           |
|   | SR. NO.                      | LOCATION REF. | SCH REF.                 | D E S C R I P T I O N                             |  | SHT NO. | QTY.                                 | TYPE      | MAKE           | ORDERING INFORMATION |           |
|   | 3                            | U17.5001      | TS-1                     | TEST SWITCH FOR GROUP-1 PROTECTION                |  | 213     | 1                                    | RXTP24    | ABB            | RK 926 315-AG        |           |
|   | 4                            | U17.5002      | TS-2                     | TEST SWITCH FOR GROUP-2 PROTECTION                |  | 214     | 1                                    | RXTP24    | ABB            | RK 926 315-AK        |           |
| B | 5                            | U23.5001      | 86C-1                    | GROUP-1 LOCKOUT RELAY                             |  | 218     | 1                                    | MVAJ105   | ALSTOM         | MVAJ105RA0802A       |           |
|   |                              |               |                          | AUX. VOLTAGE : 125V DC                            |  |         |                                      |           |                |                      |           |
|   |                              |               |                          | CONTACTS : 8NO + 2NC                              |  |         |                                      |           |                |                      |           |
|   |                              |               |                          | FLAG:STANDARD HAND RESET                          |  |         |                                      |           |                |                      |           |
| C |                              |               |                          | CONTACT MECHANISM:HAND & ELECTRICAL RESET         |  |         |                                      |           |                |                      |           |
|   | 6                            | U23.5002      | 94-1                     | TRIP RELAY  |  | 218     | 1                                    | MVAJ101   | ALSTOM         | MVAJ101RA0800A       |           |
|   |                              |               |                          | AUX. VOLTAGE : 125V DC                            |  |         |                                      |           |                |                      |           |
|   |                              |               |                          | CONTACTS : 10NO                                   |  |         |                                      |           |                |                      |           |
| D | 7                            | U23.5003      | 86BF                     | BF LOCKOUT RELAY                                  |  | 220     | 1                                    | MVAJ105   | ALSTOM         | MVAJ105RA0802A       |           |
|   |                              |               |                          | AUX. VOLTAGE : 125V DC/TRIPPING RELAY-HIGH BURDEN |  |         |                                      |           |                |                      |           |
|   |                              |               |                          | CONTACTS : 8NO + 2NC                              |  |         |                                      |           |                |                      |           |
|   |                              |               |                          | FLAG:STANDARD HAND RESET                          |  |         |                                      |           |                |                      |           |
| E |                              |               |                          | CONTACT MECHANISM:HAND & ELECTRICAL RESET         |  |         |                                      |           |                |                      |           |
|   | 8                            | U23.5004      | 86C-2                    | GROUP-2 LOCKOUT RELAY                             |  | 220     | 1                                    | MVAJ105   | ALSTOM         | MVAJ105RA0802A       |           |
|   |                              |               |                          | AUX. VOLTAGE : 125V DC                            |  |         |                                      |           |                |                      |           |
|   |                              |               |                          | CONTACTS : 8NO + 2NC                              |  |         |                                      |           |                |                      |           |
| F |                              |               |                          | FLAG:STANDARD HAND RESET                          |  |         |                                      |           |                |                      |           |
|   |                              |               |                          | CONTACT MECHANISM:HAND & ELECTRICAL RESET         |  |         |                                      |           |                |                      |           |
|   | 9                            | U23.5005      | 94-2                     | TRIP RELAY  |  | 220     | 1                                    | MVAJ101   | ALSTOM         | MVAJ101RA0800A       |           |
|   |                              |               |                          | AUX. VOLTAGE : 125V DC                            |  |         |                                      |           |                |                      |           |
| G |                              |               |                          | CONTACTS : 10NO                                   |  |         |                                      |           |                |                      |           |
|   | 10                           | U21.5001      | PB11                     | PUSH BUTTON FOR RESETTING 86C-1 LOCKOUT RELAY     |  | 218     | 1                                    | MP1-10B   | ABB            | 1SFA 611 100 R1006   |           |
|   |                              |               |                          | BUTTON COLOUR ;BLACK:CONTACT DATA:1NO+1NC         |  |         |                                      | MCBH-20   |                | 1SFA 611 605 R1102   |           |
|   | 11                           | U21.5002      | PB22                     | PUSH BUTTON FOR RESETTING 86BF LOCKOUT RELAY      |  | 220     | 1                                    | MP1-10B   | ABB            | 1SFA 611 100 R1006   |           |
|   |                              |               |                          | BUTTON COLOUR ;BLACK:CONTACT DATA:1NO+1NC         |  |         |                                      | MCBH-20   |                | 1SFA 611 605 R1102   |           |
|   | 12                           | U21.5003      | PB21                     | PUSH BUTTON FOR RESETTING 86C-2 LOCKOUT RELAY     |  | 220     | 1                                    | MP1-10B   | ABB            | 1SFA 611 100 R1006   |           |
|   |                              |               |                          | BUTTON COLOUR ;BLACK:CONTACT DATA:1NO+1NC         |  |         | 1                                    | MCBH-20   |                | 1SFA 611 605 R1102   |           |
|   | 13                           | U27.301       | 74R1                     | DC SUPERVISION RELAY (REVERSE FLAG)               |  | 218     | 1                                    | RXSF1     | ABB            | RK 271 019-AN        |           |
|   |                              |               | SPARE                    | AUX. VOLTAGE : 110-125V DC                        |  |         |                                      |           |                |                      |           |
|   |                              |               |                          | CONTACTS : 1NO + 2NC PER COIL                     |  |         |                                      |           |                |                      |           |
|   |                              |               |                          | FLAG : SELF RESET                                 |  |         |                                      |           |                |                      |           |
|   |                              |               |                          |   |  |         |                                      |           |                |                      |           |
|   | AS-BUILT BY _____ DATE _____ |               | CONTRACT NO. 11131113/00 |   | JOB ORDER NO. S-13656                        |         | LIST OF APPARATUS                    |           |                |                      |           |
|   | 01                           | 13 48         | AS MANUFACTURED          |   | DRAWN BY RIZ CHECKED BY KVR                  |         | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |           |                |                      |           |
|   | 00                           | 13 04         | FOR APPROVAL             |   | DATE STARTED 24.01.2013 DATE COMPLETED _____ |         | S/S 8709-132/13.8KV IN AL-KHARJ CITY |           |                |                      |           |
|   | REV. NO.                     | DATE          | DESCRIPTION              |   | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC         |         | RIYADH SAUDI ARABIA                  |           |                |                      |           |
|   |                              |               |                          |   |  |         | INDEX                                | PLANT NO. | DRAWING NUMBER | SHEET NO.            | REV. NO.  |
|   |                              |               |                          |   |  |         | P                                    | C421      | CD-322951      | SHT L02              | CONT. L03 |
|   |                              |               |                          |   |  |         |                                      |           |                |                      |           |
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|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
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|  | 1     | 2                        | 3 | 4  | 5 | 6                                    | 7 | 8   | 9         | 10                           |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| A  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| B  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| C  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| D  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| E  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| F  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| G  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
|  |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| <table><tr><td colspan="2">AS-BUILT BY _____ DATE _____</td><td colspan="2">CONTRACT NO. 11131113/00</td><td colspan="2">JOB ORDER NO. S-13656</td><td colspan="2">LIST OF APPARATUS</td><td colspan="2"><div>الشركة الوطنية لنقل الكهرباء</div><div>نقل الكهرباء</div><div>National Grid sa</div></td></tr><tr><td>01</td><td>13 48</td><td colspan="2">AS MANUFACTURED</td><td colspan="2">DRAWN BY RIZ CHECKED BY KVR</td><td colspan="2">13.8kv CAPACITOR BANK-1 PROT. PANEL</td><td>INDEX</td><td>PLANT NO.</td><td>DRAWING NUMBER</td><td>SHEET NO.</td><td>REV. NO.</td></tr><tr><td>00</td><td>13 04</td><td colspan="2">FOR APPROVAL</td><td colspan="2">DATE STARTED 24.01.2013 DATE COMPLETED _____</td><td colspan="2">S/S 8709-132/13.8KV IN AL-KHARJ CITY</td><td></td><td></td><td></td><td>SHT</td><td>CONT.</td></tr><tr><td>REV. NO.</td><td>DATE</td><td colspan="2">DESCRIPTION</td><td colspan="2">OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC</td><td colspan="2">RIYADH SAUDI ARABIA</td><td>P</td><td>C421</td><td>CD-322951</td><td>L03</td><td>L04 01</td></tr></table> |       |                          |   |  |   |                                      |   |   |           | AS-BUILT BY _____ DATE _____ |           | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656 |  | LIST OF APPARATUS |  | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |  | 01 | 13 48 | AS MANUFACTURED |  | DRAWN BY RIZ CHECKED BY KVR |  | 13.8kv CAPACITOR BANK-1 PROT. PANEL |  | INDEX | PLANT NO. | DRAWING NUMBER | SHEET NO. | REV. NO. | 00 | 13 04 | FOR APPROVAL |  | DATE STARTED 24.01.2013 DATE COMPLETED _____ |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |  |  |  | SHT | CONT. | REV. NO. | DATE | DESCRIPTION |  | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC |  | RIYADH SAUDI ARABIA |  | P | C421 | CD-322951 | L03 | L04 01 |
| AS-BUILT BY _____ DATE _____   |       | CONTRACT NO. 11131113/00 |   | JOB ORDER NO. S-13656                        |   | LIST OF APPARATUS                    |   | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| 01   | 13 48 | AS MANUFACTURED          |   | DRAWN BY RIZ CHECKED BY KVR                  |   | 13.8kv CAPACITOR BANK-1 PROT. PANEL  |   | INDEX   | PLANT NO. | DRAWING NUMBER               | SHEET NO. | REV. NO.                 |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| 00   | 13 04 | FOR APPROVAL             |   | DATE STARTED 24.01.2013 DATE COMPLETED _____ |   | S/S 8709-132/13.8KV IN AL-KHARJ CITY |   |   |           |                              | SHT       | CONT.                    |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| REV. NO.   | DATE  | DESCRIPTION              |   | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC         |   | RIYADH SAUDI ARABIA                  |   | P   | C421      | CD-322951                    | L03       | L04 01                   |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |
| <div>NG/D2-D (2012/01)</div> <div>DMS VECTOR</div> <div>NGD200</div>   |       |                          |   |  |   |                                      |   |   |           |                              |           |                          |  |                       |  |                   |  |   |  |    |       |                 |  |                             |  |                                     |  |       |           |                |           |          |    |       |              |  |  |  |                                      |  |  |  |  |     |       |          |      |             |  |                                      |  |                     |  |   |      |           |     |        |

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|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| A |   |   |   |   |   |   |   |   |   |    |
| B |   |   |   |   |   |   |   |   |   |    |
| C |   |   |   |   |   |   |   |   |   |    |
| D |   |   |   |   |   |   |   |   |   |    |
| E |   |   |   |   |   |   |   |   |   |    |
| F |   |   |   |   |   |   |   |   |   |    |


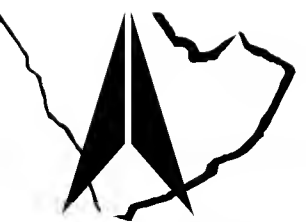
| LABEL REF. | LABEL ENGRAVING   | MATERIALS           | ENGRAVING                            | LABEL SIZE | LETTER SIZE |
|------------|-------------------|---------------------|--------------------------------------|------------|-------------|
| U05.5001   | U05.5001<br>GP1   | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4 mm        |
| U10.5001   | U10.5001<br>GP2   | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4 mm        |
| U17.101    | U17.101<br>TS-1   | ALUMINUM PAPER FOIL | BLACK LETTERS                        | 50X10mm    | 3mm         |
| U17.113    | U17.113<br>TS-2   | ALUMINUM PAPER FOIL | BLACK LETTERS                        | 50X10mm    | 3mm         |
| U21.5001   | U21.5001<br>PB11  | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4 mm        |
| U21.5002   | U21.5002<br>PB22  | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4 mm        |
| U21.5003   | U21.5003<br>PB21  | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4 mm        |
| U23.5001   | U23.5001<br>86C-1 | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4 mm        |
| U23.5002   | U23.5002<br>94-1  | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4 mm        |
| U23.5003   | U23.5003<br>86CBF | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4 mm        |
| U23.5004   | U23.5004<br>86C-2 | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4 mm        |
| U23.5005   | U23.5005<br>94-2  | TRAFOLITE           | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X10mm    | 3mm         |
| U27.301    | U27.301<br>74R1   | ALUMINUM PAPER FOIL | BLACK LETTERS                        | 50X10mm    | 3mm         |
| U27.307    | U27.307<br>74R2   | ALUMINUM PAPER FOIL | BLACK LETTERS                        | 50X10mm    | 3mm         |

|   |                              |       |                          |  |  |  |                                      |  |  |   |   |           |                |                   |           |    |
|---|------------------------------|-------|--------------------------|--|--|--|--------------------------------------|--|--|---|---|-----------|----------------|-------------------|-----------|----|
| G | AS-BUILT BY _____ DATE _____ |       | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656                        |  | LIST OF APPARATUS                    |  |  |   | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid SA</div> |           |                |                   |           |    |
|   | 01                           | 13 48 | AS MANUFACTURED          |  | DRAWN BY RIZ CHECKED BY KVR                  |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  |  |   |   |           |                |                   |           |    |
|   | 00                           | 13 04 | FOR APPROVAL             |  | DATE STARTED 24.01.2013 DATE COMPLETED _____ |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |  |   |   |           |                |                   |           |    |
|   | REV. NO.                     | DATE  | DESCRIPTION              |  | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC         |  | RIYADH SAUDI ARABIA                  |  |  |   | INDEX   | PLANT NO. | DRAWING NUMBER |                   | SHEET NO. |    |
|   |                              |       |                          |  |  |  |                                      |  |  | P | C421  | CD-322951 |                | SHT L05 CONT. L06 |           | 01 |

|   |   |   |   |   |   |   |   |   |   |    |
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| C |   |   |   |   |   |   |   |   |   |    |
| D |   |   |   |   |   |   |   |   |   |    |
| E |   |   |   |   |   |   |   |   |   |    |
| F |   |   |   |   |   |   |   |   |   |    |

| LABEL REF. | LABEL ENGRAVING          | MATERIALS | ENGRAVING                            | LABEL SIZE | LETTER SIZE |
|------------|--------------------------|-----------|--------------------------------------|------------|-------------|
| C1         | C1<br>127V AC SUPPLY MCB | TRAFOLITE | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4mm         |
| C2         | C2<br>220V AC SUPPLY MCB | TRAFOLITE | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4mm         |
| C3         | C3<br>THERMOSTAT         | TRAFOLITE | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4mm         |
| C7         | C7<br>ON/OFF SWITCH      | TRAFOLITE | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4mm         |
| DS         | DS<br>DOOR SWITCH        | TRAFOLITE | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4mm         |
| IL         | IL<br>ILLUMINATION LAMP  | TRAFOLITE | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4mm         |
| SH         | SH<br>SPACE HEATER       | TRAFOLITE | BLACK LETTERS<br>ON WHITE BACKGROUND | 50X15mm    | 4mm         |

|   |                              |       |                          |  |                                      |  |  |           |                |           |       |          |
|---|------------------------------|-------|--------------------------|--|--------------------------------------|--|--|-----------|----------------|-----------|-------|----------|
| G | AS-BUILT BY _____ DATE _____ |       | CONTRACT NO. 11131113/00 | JOB ORDER NO. S-13656                        | LIST OF APPARATUS                    |  | الشركة الوطنية لنقل الكهرباء<br>National Grid SA |           |                |           |       |          |
|   | 01                           | 13 48 | AS MANUFACTURED          | DRAWN BY RIZ CHECKED BY KVR                  | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  | INDEX  | PLANT NO. | DRAWING NUMBER | SHEET NO. |       | REV. NO. |
|   | 00                           | 13 04 | FOR APPROVAL             | DATE STARTED 24.01.2013 DATE COMPLETED _____ | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |  |           |                | SHT       | CONT. |          |
|   | REV. NO.                     | DATE  | DESCRIPTION              | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC         | RIYADH SAUDI ARABIA                  |  |  |           |                | L06       | NIL   |          |
|   |                              |       |                          |  |                                      |  | P  | C421      | CD-322951      |           |       |          |

|                              |  |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
|------------------------------|--|---|---|---|--------------------------------------|---|-------------|--|--------------------------|-----------------------------|------------------------------|--|--|--------------------------|--|-----------------------|--|-------------|--|--|--------------------------|--|--|-----------------------------|--|-------------------------------------|--|--|--|--|-----------------------|--|--|--|--|--------------------------------------|--|--|--|--|---------------------------|--|--|--------------------------------------|--|---------------------|--|---------|----------------|--------------------------|-----------------------------|--|--|--|--|--|--|--|--|--|--|-------------|
|                              | 1  | 2 | 3   | 4 | 5                                    | 6 | 7           | 8  | 9                        | 10                          |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| A                            |   |   | POWER SYSTEMS NETWORK MANAGEMENT<br>PROTECTION AND SUBSTATION AUTOMATION SYSTEMS<br>WBS NO: S-13656 |   |                                      |   |             | ABB AUTOMATION COMPANY LTD.,<br>414, AL-KHARJ ROAD<br>SECOND INDUSTRIAL CITY<br>RIYADH-11383 K.S.A |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| B                            |  |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| C                            | CONTRACTOR : ABB Contracting Company   |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
|                              | CLIENT : National Grid sa  |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| D                            | PROJECT : CONSTRUCTION OF NEW 132/13.8kV SS 8709 IN AL-KHARJ CITY  |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
|                              | SUBSTATION : S/S 8709  |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| E                            | CONTRACT NO. : 11131113/00   |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
|                              | TITLE : SCHEMATICS DRAWINGS +CBP1 (SHUNT CAPACITOR BANK-1)   |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| F                            |  |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| G                            | <table><tr><td colspan="3">AS-BUILT BY _____ DATE _____</td><td colspan="2">CONTRACT NO. 11131113/00</td><td colspan="2">JOB ORDER NO. S-13656</td><td colspan="3">COVER SHEET</td></tr><tr><td colspan="3">01 13 48 AS MANUFACTURED</td><td colspan="2">DRAWN BY RIZ CHECKED BY KVR</td><td colspan="5">13.8kV CAPACITOR BANK-1 PROT. PANEL</td></tr><tr><td colspan="3">00 13 04 FOR APPROVAL</td><td colspan="2">DATE STARTED 24.01.2013 DATE COMPLETED _____</td><td colspan="5">S/S 8709-132/13.8KV IN AL-KHARJ CITY</td></tr><tr><td colspan="3">REV. NO. DATE DESCRIPTION</td><td colspan="2">OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC</td><td colspan="2">RIYADH SAUDI ARABIA</td><td>INDEX -</td><td>PLANT NO. C421</td><td>DRAWING NUMBER CD-322952</td><td>SHEET NO. SHT 000 CONT. 001</td></tr><tr><td colspan="3"></td><td colspan="2"></td><td colspan="2"></td><td></td><td></td><td></td><td>REV. NO. 01</td></tr></table> |   |   |   |                                      |   |             |  |                          |                             | AS-BUILT BY _____ DATE _____ |  |  | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656 |  | COVER SHEET |  |  | 01 13 48 AS MANUFACTURED |  |  | DRAWN BY RIZ CHECKED BY KVR |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL |  |  |  |  | 00 13 04 FOR APPROVAL |  |  | DATE STARTED 24.01.2013 DATE COMPLETED _____ |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |  |  |  | REV. NO. DATE DESCRIPTION |  |  | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC |  | RIYADH SAUDI ARABIA |  | INDEX - | PLANT NO. C421 | DRAWING NUMBER CD-322952 | SHEET NO. SHT 000 CONT. 001 |  |  |  |  |  |  |  |  |  |  | REV. NO. 01 |
| AS-BUILT BY _____ DATE _____ |  |   | CONTRACT NO. 11131113/00  |   | JOB ORDER NO. S-13656                |   | COVER SHEET |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| 01 13 48 AS MANUFACTURED     |  |   | DRAWN BY RIZ CHECKED BY KVR   |   | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| 00 13 04 FOR APPROVAL        |  |   | DATE STARTED 24.01.2013 DATE COMPLETED _____  |   | S/S 8709-132/13.8KV IN AL-KHARJ CITY |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
| REV. NO. DATE DESCRIPTION    |  |   | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC  |   | RIYADH SAUDI ARABIA                  |   | INDEX -     | PLANT NO. C421   | DRAWING NUMBER CD-322952 | SHEET NO. SHT 000 CONT. 001 |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
|                              |  |   |   |   |                                      |   |             |  |                          | REV. NO. 01                 |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |
|                              | <div><div><div>الشركة الوطنية لنقل الكهرباء</div><div></div><div>National Grid sa</div></div><div><div>NG/D2-D (2012/01)</div><div>DMS VECTOR</div><div>NGD200</div></div></div>  |   |   |   |                                      |   |             |  |                          |                             |                              |  |  |                          |  |                       |  |             |  |  |                          |  |  |                             |  |                                     |  |  |  |  |                       |  |  |  |  |                                      |  |  |  |  |                           |  |  |                                      |  |                     |  |         |                |                          |                             |  |  |  |  |  |  |  |  |  |  |             |

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| GRAPHICAL SYMBOLS FOR DIAGRAMS            | 012            | X      | X      |        |
| COMMON LEGEND                             | 013            | X      | X      |        |
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| VT CIRCUITS-GP2 PROTN                     | 215            | X      | X      |        |
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| DC LOGIC CIRCUITS-GP1 PROTECTION          | 218            | X      | X      |        |
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| 13.8kV CBS105 TRIP CIRCUIT 1&2            | 222            | X      | X      |        |
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| 13.8kV CB CLOSE BLOCK CIRCUITS            | 224            | X      | X      |        |
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| SPARE CONTACTS            | 231            | X      | X      |        |
| SAS COMMUNICATIOIN        | 245            | X      | X      |        |
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| BLOCK REFERENCE-GP2       | 602            | X      | X      |        |
| BLOCK REFERENCE-GP2       | 603            | X      | X      |        |
| BLOCK REFERENCE-GP2       | 604            | X      | X      |        |
| TERMINAL BLOCK ALLOCATION | 604            | X      | X      |        |
|                           |                |        |        |        |
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AS-BUILT BY \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACT NO. 11131113/00

JOB ORDER NO. S-13656

01

13 48

AS MANUFACTURED

00

13 04

FOR APPROVAL

REV. NO.

DATE

DESCRIPTION

DRAWN BY RIZ

CHECKED BY KVR

DATE STARTED 24.01.2013

DATE COMPLETED \_\_\_\_\_

OPRG. DEPT. CTPD

ENG. DEPT. AUT-PSAC

CONTENTS SHEET

13.8kV CAPACITOR BANK-1 PROT. PANEL

S/S 8709-132/13.8KV IN AL-KHARJ CITY

RIYADH SAUDI ARABIA

الشركة الوطنية لنقل الكهرباء

نقل الكهرباء

National Grid sa

INDEX

PLANT NO.

DRAWING NUMBER

SHEET NO.

SHT

CONT.

REV. NO.

P

C421

CD-322952

001

011

01

NG/D2-D (2012/01)

DMS

VECTOR

NGD200





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LEGENDS

|              |  |
|--------------|--|
| ±R1          | DC SUPPLY - MAIN PROTECTION            |
| ±R2          | DC SUPPLY - SECONDARY PROTECTION       |
| ±R3          | DC SUPPLY - BACK UP PROTECTION         |
| ±IT          | DC SUPPLY - INTER TRIP                 |
| FL           | DC SUPPLY - FLASHING CIRCUIT           |
| BB RS±       | DC SUPPLY - BUS BAR - PROTECTION RESET |
| BB CBF±/CBF± | DC SUPPLY - CBF PROTECTION             |
| R            | RESET BUS - ALARM SYSTEM               |
| CR           | CONTROL ROOM                           |
| ECC          | ENERGY CONTROL CENTRE                  |
| LOCAL        | THE LOCATION OF CONTROLLED DEVICE      |
| REMOTE       | ANY OTHER LOCATION NOT LOCAL           |
| ON           | CB NORMALLY OPEN AUXILIARY CONTACT     |
| OFF          | CB NORMALLY CLOSED AUXILIARY CONTACT   |
| A            | COMMON                                 |
| T            | TEST POSITION                          |
| S            | SERVICE POSITION                       |
| CS           | CLOSE IN SERVICE POSITION              |
| CT           | CLOSE IN TEST POSITION                 |
| LS           | LOCAL SERVICE                          |
| LT           | LOCAL TEST                             |
| LC           | LOCAL CLOSE                            |
| LO           | LOCAL OPEN                             |
| RO           | REMOTE OPEN                            |

NOTES

LABELS

WHITE LABEL WITH BLACK LETTERING WILL BE PROVIDED FOR ALL MOUNTED APPARATUS EQUIPMENT IDENTIFICATION AND FUNCTION REFERENCE LABEL WILL BE PROVIDED FOR FRONT MOUNTED EQUIPMENTS OF THE PANEL AND EQUIPMENT IDENTIFICATION LABEL WILL BE PROVIDED FOR INTERNALLY MOUNTED EQUIPMENTS

LUGS

- A. CT CIRCUITS- RING TYPE
- B. OTHER CIRCUITS - SPADE TYPE

FERULLING

YELLOW TUBE 3.2 mm FOR 1.5SQ mm WIRES AND 4.2 FOR 2.5 SQ mm WIRES ( AS PER 31 - TMSS-1, RE.0 )

AS-BUILT BY \_\_\_\_\_ DATE \_\_\_\_\_ CONTRACT NO. 11131113/00 JOB ORDER NO. S-13656

|          |       |                 |
|----------|-------|-----------------|
| 01       | 13 48 | AS MANUFACTURED |
| 00       | 13 04 | FOR APPROVAL    |
| REV. NO. | DATE  | DESCRIPTION     |

|              |            |                |          |
|--------------|------------|----------------|----------|
| DRAWN BY     | RIZ        | CHECKED BY     | KVR      |
| DATE STARTED | 24.01.2013 | DATE COMPLETED |          |
| OPRG. DEPT.  | CTPD       | ENG. DEPT.     | AUT-PSAC |

COMMON LEGENDS

13.8kV CAPACITOR BANK-1 PROT. PANEL  
S/S 8709-132/13.8KV IN AL-KHARJ CITY  
RIYADH SAUDI ARABIA

الشركة الوطنية لنقل الكهرباء



| INDEX | PLANT NO. | DRAWING NUMBER | SHEET NO.         | REV. NO. |
|-------|-----------|----------------|-------------------|----------|
| P     | C421      | CD-322952      | SHT 013 CONT. 014 | 01       |

NG/D2-D (2012/01)

DMS

VECTOR

NGD200



A

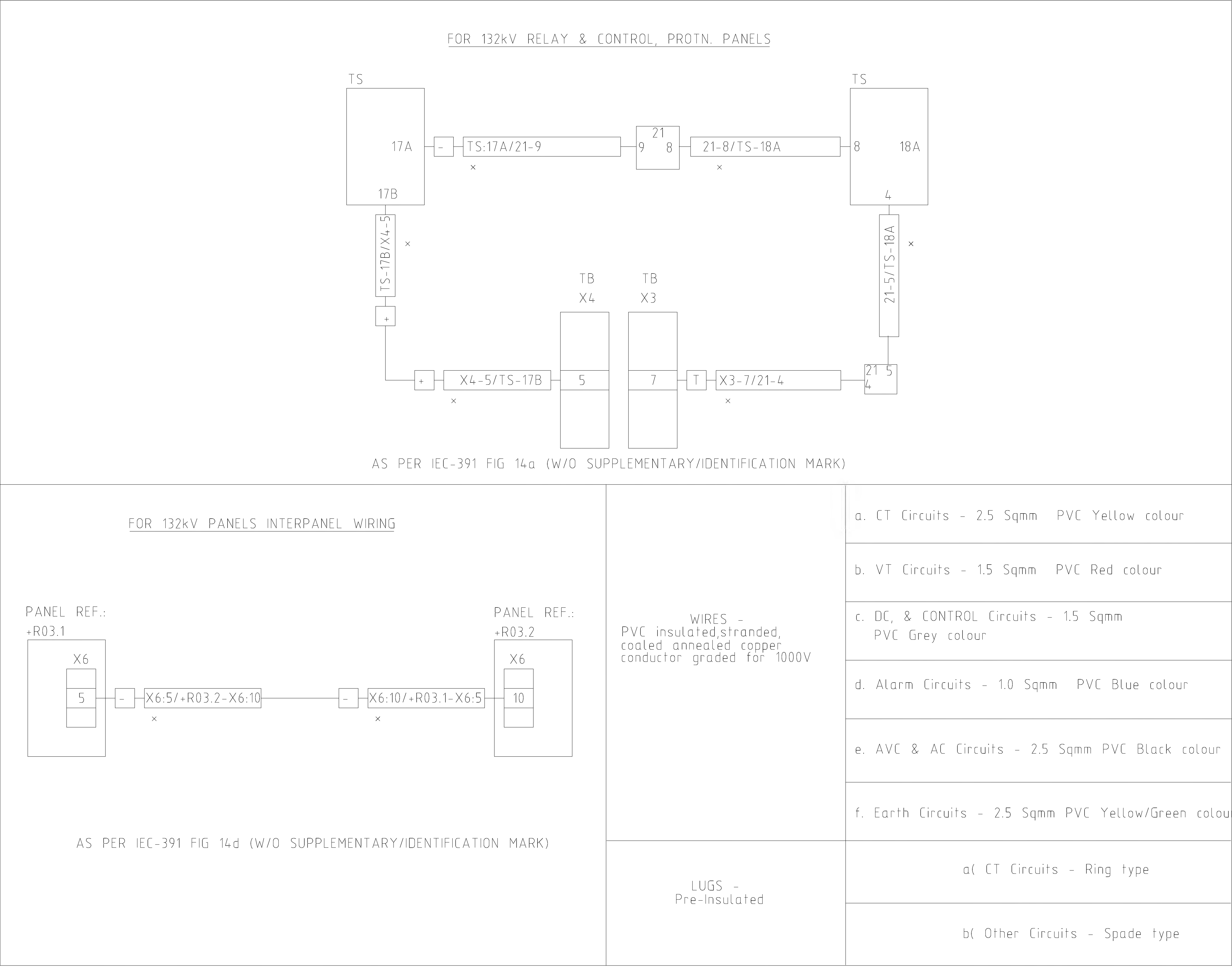
B

C

D

E

F



NOTE:1 ADDITIONAL MARKING AS APPLICABLE

NOTE:2 FERRULE NUMBERING WILL BE BLACK LETTERS ON YELLOW TUBE

3.2 mm for 1.5 sq mm wires and

4.2 mm for 2.5 sq mm wires

( As per 31-TMSS-1, REV 0 )

NOTE:3 STARTING POINT OF THE FERRULE LEFT TO RIGHT

G

|                              |       |                 |                          |  |                       |  |                                      |  |  |   |           |                |           |       |          |
|------------------------------|-------|-----------------|--------------------------|--|-----------------------|--|--------------------------------------|--|--|---|-----------|----------------|-----------|-------|----------|
| AS-BUILT BY _____ DATE _____ |       |                 | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656 |  | FERRULE AND WIRING DETAILS           |  |  | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |           |                |           |       |          |
| 01                           | 13 48 | AS MANUFACTURED | DRAWN BY RIZ             |  | CHECKED BY KVR        |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  |  | INDEX   | PLANT NO. | DRAWING NUMBER | SHEET NO. |       | REV. NO. |
| 00                           | 13 04 | FOR APPROVAL    | DATE STARTED 24.01.2013  |  | DATE COMPLETED        |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |  |   |           |                | SHT       | CONT. |          |
| REV. NO.                     | DATE  | DESCRIPTION     | OPRG. DEPT. CTPD         |  | ENG. DEPT. AUT-PSAC   |  | RIYADH SAUDI ARABIA                  |  |  |   |           |                | 014       | 015   |          |



|                              |   |   |  |   |                                      |   |                    |                |   |   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
|------------------------------|---|---|--|---|--------------------------------------|---|--------------------|----------------|---|---|------------------------------|--|--|--------------------------|--|-----------------------|--|--------------------|--|--|---|--|--------------------------|--|--|-----------------------------|--|-------------------------------------|--|--|-------|--|-----------|--|-----------------------|--|--|--|--|--------------------------------------|--|--|----------------|--|-----------|--|---------------------------|--|--|--------------------------------------|--|---------------------|--|--|--------|--|-----------|--|--|--|--|--|--|--|--|--|---------|--|-----------|--|--|--|--|--|--|--|--|--|--|--|-------------|--|
|                              | 1   | 2 | 3                                      | 4 | 5                                    | 6 | 7                  | 8              | 9 | 10  |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| A                            |   |   |  |   |                                      |   |                    |                |   |   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| B                            |   |   |  |   |                                      |   |                    |                |   |   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| C                            |   |   |  |   |                                      |   |                    |                |   |   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| D                            |   |   |  |   |                                      |   |                    |                |   |   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| E                            |   |   |  |   |                                      |   |                    |                |   |   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| F                            |   |   |  |   |                                      |   |                    |                |   |   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| G                            | <table><tr><td colspan="3">AS-BUILT BY _____ DATE _____</td><td colspan="2">CONTRACT NO. 11131113/00</td><td colspan="2">JOB ORDER NO. S-13656</td><td colspan="3">DRAWING REFERENCES</td><td colspan="2"><div>الشركة الوطنية لنقل الكهرباء</div><div>نقل الكهرباء</div><div>National Grid sa</div></td></tr><tr><td colspan="3">01 13 48 AS MANUFACTURED</td><td colspan="2">DRAWN BY RIZ CHECKED BY KVR</td><td colspan="3">13.8kV CAPACITOR BANK-1 PROT. PANEL</td><td colspan="2">INDEX</td><td colspan="2">PLANT NO.</td></tr><tr><td colspan="3">00 13 04 FOR APPROVAL</td><td colspan="2">DATE STARTED 24.01.2013 DATE COMPLETED</td><td colspan="3">S/S 8709-132/13.8KV IN AL-KHARJ CITY</td><td colspan="2">DRAWING NUMBER</td><td colspan="2">SHEET NO.</td></tr><tr><td colspan="3">REV. NO. DATE DESCRIPTION</td><td colspan="2">OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC</td><td colspan="3">RIYADH SAUDI ARABIA</td><td colspan="2">- C421</td><td colspan="2">CD-322952</td></tr><tr><td colspan="3"></td><td colspan="2"></td><td colspan="3"></td><td colspan="2">SHT 015</td><td colspan="2">CONT. 016</td></tr><tr><td colspan="3"></td><td colspan="2"></td><td colspan="3"></td><td colspan="2"></td><td colspan="2">REV. NO. 01</td></tr></table> |   |  |   |                                      |   |                    |                |   |   | AS-BUILT BY _____ DATE _____ |  |  | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656 |  | DRAWING REFERENCES |  |  | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |  | 01 13 48 AS MANUFACTURED |  |  | DRAWN BY RIZ CHECKED BY KVR |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL |  |  | INDEX |  | PLANT NO. |  | 00 13 04 FOR APPROVAL |  |  | DATE STARTED 24.01.2013 DATE COMPLETED |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |  | DRAWING NUMBER |  | SHEET NO. |  | REV. NO. DATE DESCRIPTION |  |  | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC |  | RIYADH SAUDI ARABIA |  |  | - C421 |  | CD-322952 |  |  |  |  |  |  |  |  |  | SHT 015 |  | CONT. 016 |  |  |  |  |  |  |  |  |  |  |  | REV. NO. 01 |  |
| AS-BUILT BY _____ DATE _____ |   |   | CONTRACT NO. 11131113/00               |   | JOB ORDER NO. S-13656                |   | DRAWING REFERENCES |                |   | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| 01 13 48 AS MANUFACTURED     |   |   | DRAWN BY RIZ CHECKED BY KVR            |   | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |   |                    | INDEX          |   | PLANT NO.   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| 00 13 04 FOR APPROVAL        |   |   | DATE STARTED 24.01.2013 DATE COMPLETED |   | S/S 8709-132/13.8KV IN AL-KHARJ CITY |   |                    | DRAWING NUMBER |   | SHEET NO.   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
| REV. NO. DATE DESCRIPTION    |   |   | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC   |   | RIYADH SAUDI ARABIA                  |   |                    | - C421         |   | CD-322952   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
|                              |   |   |  |   |                                      |   |                    | SHT 015        |   | CONT. 016   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |
|                              |   |   |  |   |                                      |   |                    |                |   | REV. NO. 01   |                              |  |  |                          |  |                       |  |                    |  |  |   |  |                          |  |  |                             |  |                                     |  |  |       |  |           |  |                       |  |  |  |  |                                      |  |  |                |  |           |  |                           |  |  |                                      |  |                     |  |  |        |  |           |  |  |  |  |  |  |  |  |  |         |  |           |  |  |  |  |  |  |  |  |  |  |  |             |  |

| MANUFACTURER | SCHEMATICS DWG.NO | PANEL DESCRIPTION                                 | PANEL REFERENCE |
|--------------|-------------------|---|-----------------|
|              |                   | SS 8709 132kV RELAY PANELS                        |                 |
| CD-322928    |                   | 132/13.8kV GT-1 RELAY PANEL -1                    | +R05.1          |
|              |                   | 132/13.8kV GT-1 RELAY PANEL -2                    | +R05.2          |
| CD-322931    |                   | 132/13.8kV GT-2 RELAY PANEL -1                    | +R01.1          |
|              |                   | 132/13.8kV GT-2 RELAY PANEL -2                    | +R01.2          |
| CD-322934    |                   | 132/13.8kV GT-3 RELAY PANEL -1                    | +R04.1          |
|              |                   | 132/13.8kV GT-3 RELAY PANEL -2                    | +R04.2          |
| CD-322936    |                   | 132/13.8kV TRANSFORMER-1,2& 3 AVC PANEL           | +AVC            |
| CD-322922    |                   | 132KV SPARE-1 UGF RELAY PANEL -1                  | +R07.1          |
|              |                   | 132KV SPARE-1 UGF RELAY PANEL -2                  | +R07.2          |
| CD-322916    |                   | 132KV 8020 UGF RELAY PANEL -1                     | +R02.1          |
|              |                   | 132KV 8020 UGF RELAY PANEL -2                     | +R02.2          |
| CD-322919    |                   | 132KV 8710 UGF RELAY PANEL -1                     | +R03.1          |
|              |                   | 132KV 8710 UGF RELAY PANEL -2                     | +R03.2          |
| CD-322925    |                   | 132KV SPARE-2 UGF RELAY PANEL -1                  | +R06.1          |
|              |                   | 132KV SPARE-2 UGF RELAY PANEL -2                  | +R06.2          |
| CD-323012    |                   | 132KV FOIP PANEL                                  | +FOIP           |
| CD-322946    |                   | 132kV BUS COUPLER-A                               | +R130           |
| CD-322948    |                   | 132kV BUS COUPLER-B                               | +R230           |
| CD-322950    |                   | 132kV BUS SECTION                                 | +R120           |
| CD-322991    |                   | 132kV BUSBAR PROTECTION MAIN-1 CENTRAL UNIT PANEL | +BB1-1          |
| CD-322993    |                   | 132kV BUSBAR PROTECTION MAIN-1 BAY UNIT PANEL     | +BB1-2          |
| CD-322995    |                   | 132kV BUSBAR PROTECTION MAIN-1 BAY UNIT PANEL     | +BB1-3          |
| CD-322997    |                   | 132kV BUSBAR PROTECTION MAIN-1 BAY UNIT PANEL     | +BB1-4          |
| CD-322999    |                   | 132kV BUSBAR PROTECTION MAIN-1 BAY UNIT PANEL     | +BB1-5          |
| CD-323001    |                   | 132kV BUSBAR PROTECTION MAIN-2 CENTRAL UNIT PANEL | +BB2-1          |
| CD-323003    |                   | 132kV BUSBAR PROTECTION MAIN-2 BAY UNIT PANEL     | +BB2-2          |
| CD-323005    |                   | 132kV BUSBAR PROTECTION MAIN-2 BAY UNIT PANEL     | +BB2-3          |
| CD-323007    |                   | 132kV BUSBAR PROTECTION MAIN-2 BAY UNIT PANEL     | +BB2-4          |
| CD-323009    |                   | 132kV BUSBAR PROTECTION MAIN-2 BAY UNIT PANEL     | +BB2-5          |



PROTECTION & SUBSTATION  
AUTOMATION

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DMS

VECTOR

NGD200

NG/D2-D (2012/01)

|                              |  |       |                          |   |                         |   |                                     |   |                                      |   |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|--|-------|--------------------------|---|-------------------------|---|-------------------------------------|---|--------------------------------------|---|------------------------------|----------------|-----------|--------------------------|--|-----------------------|--|--------------------|--|--|---|--|--|--|--|--------------|--|----------------|--|-------------------------------------|--|--|-------|-----------|----------------|-----------|----------|--|----|-------|-----------------|--|-------------------------|--|----------------|--|--------------------------------------|--|--|-----|-------|--|--|----|-------|--------------|--|------------------|--|---------------------|--|---------------------|--|--|-----|-----|----|--|----------|------|-------------|--|--|--|--|--|--|--|--|--|--|--|
|                              | 1  | 2     | 3                        | 4 | 5                       | 6 | 7                                   | 8 | 9                                    | 10  |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
| A                            |  |       |                          |   |                         |   |                                     |   |                                      |   |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
| B                            |  |       |                          |   |                         |   |                                     |   |                                      |   |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
| C                            |  |       |                          |   |                         |   |                                     |   |                                      |   |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
| D                            |  |       |                          |   |                         |   |                                     |   |                                      |   |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
| E                            |  |       |                          |   |                         |   |                                     |   |                                      |   |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
| F                            |  |       |                          |   |                         |   |                                     |   |                                      |   |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
| G                            | <table><tr><td colspan="3">AS-BUILT BY _____ DATE _____</td><td colspan="2">CONTRACT NO. 11131113/00</td><td colspan="2">JOB ORDER NO. S-13656</td><td colspan="3">DRAWING REFERENCES</td><td colspan="2"><div>الشركة الوطنية لنقل الكهرباء</div><div>نقل الكهرباء</div><div>National Grid sa</div></td></tr><tr><td></td><td></td><td></td><td colspan="2">DRAWN BY RIZ</td><td colspan="2">CHECKED BY KVR</td><td colspan="3">13.8kV CAPACITOR BANK-1 PROT. PANEL</td><td>INDEX</td><td>PLANT NO.</td><td>DRAWING NUMBER</td><td>SHEET NO.</td><td>REV. NO.</td></tr><tr><td></td><td>01</td><td>13 48</td><td colspan="2">AS MANUFACTURED</td><td colspan="2">DATE STARTED 24.01.2013</td><td colspan="2">DATE COMPLETED</td><td colspan="3">S/S 8709-132/13.8KV IN AL-KHARJ CITY</td><td>SHT</td><td>CONT.</td><td></td></tr><tr><td></td><td>00</td><td>13 04</td><td colspan="2">FOR APPROVAL</td><td colspan="2">OPRG. DEPT. CTPD</td><td colspan="2">ENG. DEPT. AUT-PSAC</td><td colspan="3">RIYADH SAUDI ARABIA</td><td>016</td><td>211</td><td>01</td></tr><tr><td></td><td>REV. NO.</td><td>DATE</td><td colspan="2">DESCRIPTION</td><td colspan="2"></td><td colspan="2"></td><td colspan="3"></td><td colspan="2"></td><td></td></tr></table> |       |                          |   |                         |   |                                     |   |                                      |   | AS-BUILT BY _____ DATE _____ |                |           | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656 |  | DRAWING REFERENCES |  |  | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |  |  |  |  | DRAWN BY RIZ |  | CHECKED BY KVR |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL |  |  | INDEX | PLANT NO. | DRAWING NUMBER | SHEET NO. | REV. NO. |  | 01 | 13 48 | AS MANUFACTURED |  | DATE STARTED 24.01.2013 |  | DATE COMPLETED |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |  | SHT | CONT. |  |  | 00 | 13 04 | FOR APPROVAL |  | OPRG. DEPT. CTPD |  | ENG. DEPT. AUT-PSAC |  | RIYADH SAUDI ARABIA |  |  | 016 | 211 | 01 |  | REV. NO. | DATE | DESCRIPTION |  |  |  |  |  |  |  |  |  |  |  |
| AS-BUILT BY _____ DATE _____ |  |       | CONTRACT NO. 11131113/00 |   | JOB ORDER NO. S-13656   |   | DRAWING REFERENCES                  |   |                                      | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
|                              |  |       | DRAWN BY RIZ             |   | CHECKED BY KVR          |   | 13.8kV CAPACITOR BANK-1 PROT. PANEL |   |                                      | INDEX   | PLANT NO.                    | DRAWING NUMBER | SHEET NO. | REV. NO.                 |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
|                              | 01   | 13 48 | AS MANUFACTURED          |   | DATE STARTED 24.01.2013 |   | DATE COMPLETED                      |   | S/S 8709-132/13.8KV IN AL-KHARJ CITY |   |                              | SHT            | CONT.     |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
|                              | 00   | 13 04 | FOR APPROVAL             |   | OPRG. DEPT. CTPD        |   | ENG. DEPT. AUT-PSAC                 |   | RIYADH SAUDI ARABIA                  |   |                              | 016            | 211       | 01                       |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |
|                              | REV. NO.   | DATE  | DESCRIPTION              |   |                         |   |                                     |   |                                      |   |                              |                |           |                          |  |                       |  |                    |  |  |   |  |  |  |  |              |  |                |  |                                     |  |  |       |           |                |           |          |  |    |       |                 |  |                         |  |                |  |                                      |  |  |     |       |  |  |    |       |              |  |                  |  |                     |  |                     |  |  |     |     |    |  |          |      |             |  |  |  |  |  |  |  |  |  |  |  |

ABB

PROTECTION & SUBSTATION  
AUTOMATION

| MANUFACTURER                                 | SCHEMATICS DWG.NO | PANEL DESCRIPTION                            | PANEL REFERENCE |
|--|-------------------|--|-----------------|
| ABB<br>PROTECTION & SUBSTATION<br>AUTOMATION |                   | SS 8709 13.8KV RELAY PANELS                  |                 |
|  | CD-322952         | 13.8KV Capacitor Bank-1 Protection Panel     | +CBP-1          |
|  | CD-322954         | 13.8KV Capacitor Bank-2 Protection Panel     | +CBP-2          |
|  | CD-322956         | 13.8KV Capacitor Bank-2 Protection Panel     | +CBP-3          |
|  | CD-322958         | 13.8 KV ACCS PANEL                           | +ACCS           |
|  | CD-322962         | 13.8KV ACSE PANEL                            | +ACSE           |
|  | CD-322968         | 13.8KV Under Voltage Load Shedding Panel     | +UVLS           |
|  | CD-322964         | 13.8KV Under Frequency Load Shedding Panel-1 | +UFLS01         |
|  | CD-322966         | 13.8KV Under Frequency Load Shedding Panel-2 | +UFLS02         |
|  |                   |  |                 |
|  |                   |  |                 |
|  |                   |  |                 |

|                              |          |                          |             |                       |  |                                      |  |   |           |                |           |          |    |
|------------------------------|----------|--------------------------|-------------|-----------------------|--|--------------------------------------|--|---|-----------|----------------|-----------|----------|----|
| AS-BUILT BY _____ DATE _____ |          | CONTRACT NO. 11131113/00 |             | JOB ORDER NO. S-13656 |  | DRAWING REFERENCES                   |  | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |           |                |           |          |    |
|                              |          | DRAWN BY RIZ             |             | CHECKED BY KVR        |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  | INDEX   | PLANT NO. | DRAWING NUMBER | SHEET NO. | REV. NO. |    |
|                              |          | DATE STARTED 24.01.2013  |             | DATE COMPLETED        |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |   |           |                | SHT       | CONT.    |    |
|                              |          | OPRG. DEPT. CTPD         |             | ENG. DEPT. AUT-PSAC   |  | RIYADH SAUDI ARABIA                  |  | -   | C421      | CD-322952      | 016       | 211      | 01 |
|                              | REV. NO. | DATE                     | DESCRIPTION |                       |  |                                      |  |   |           |                |           |          |    |

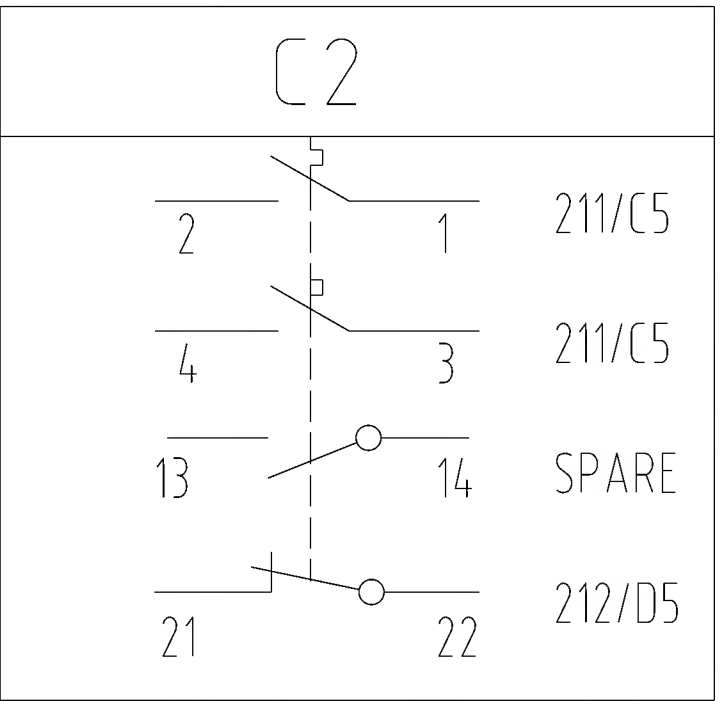
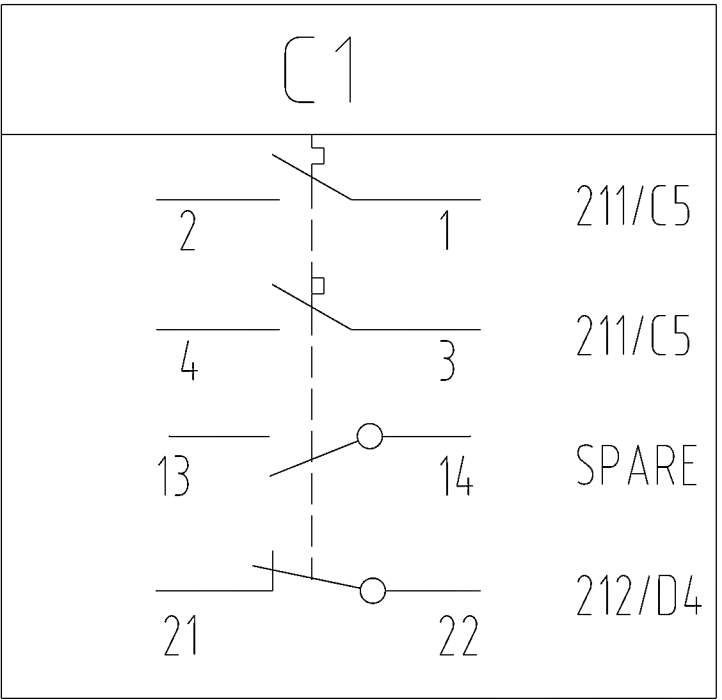
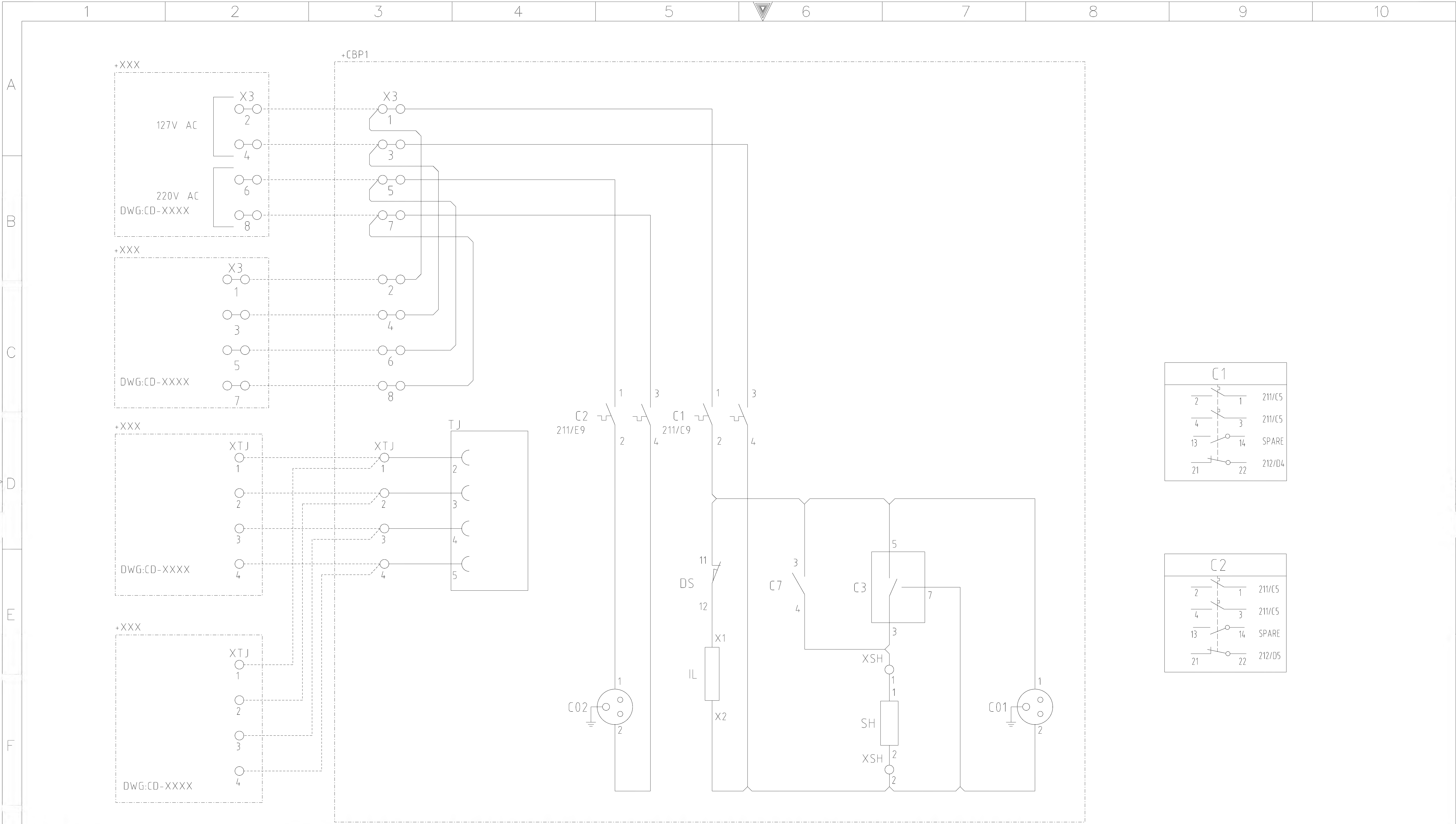
NG/D2-D (2012/01)

DMS

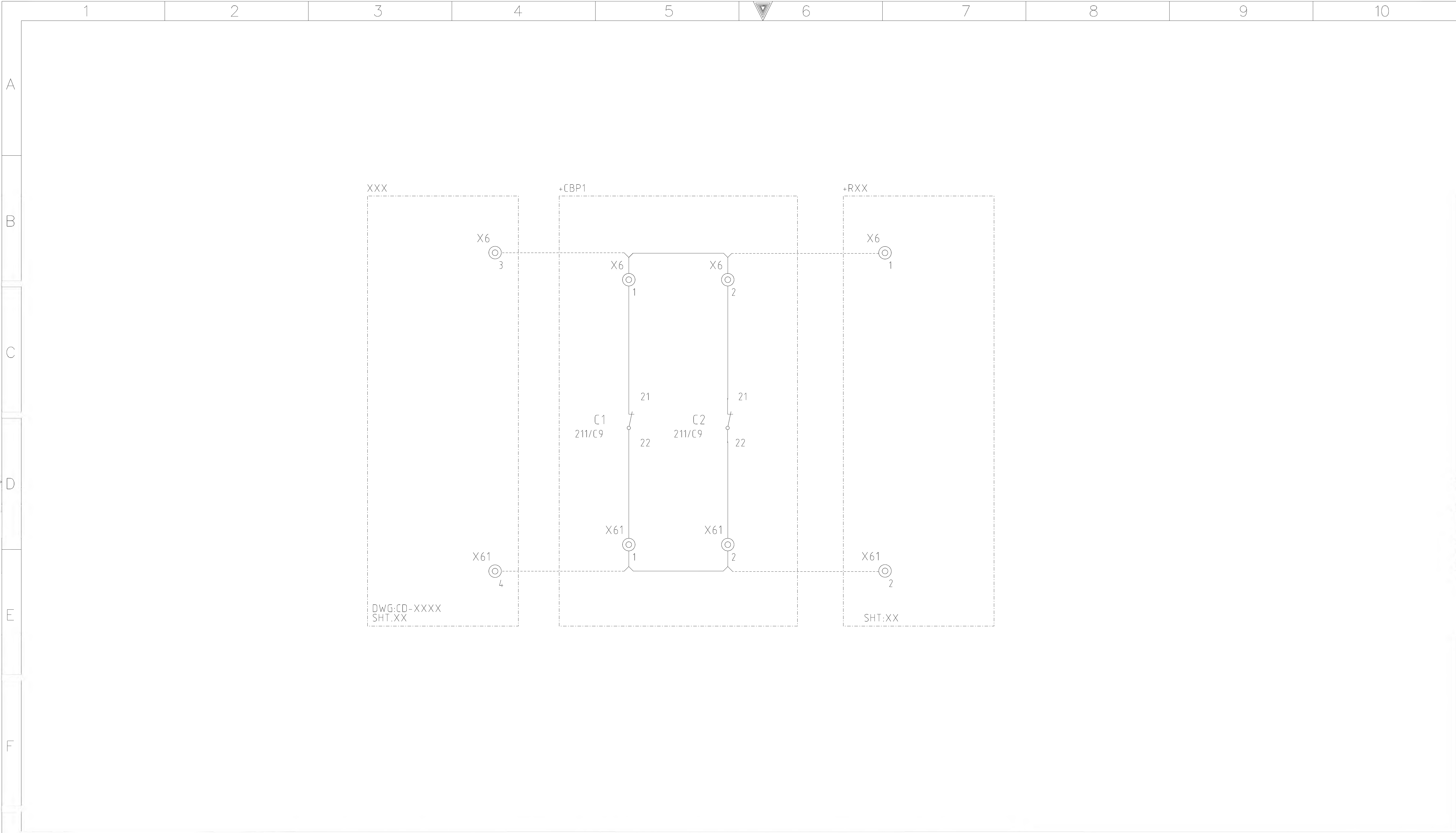
VECTOR

NGD200

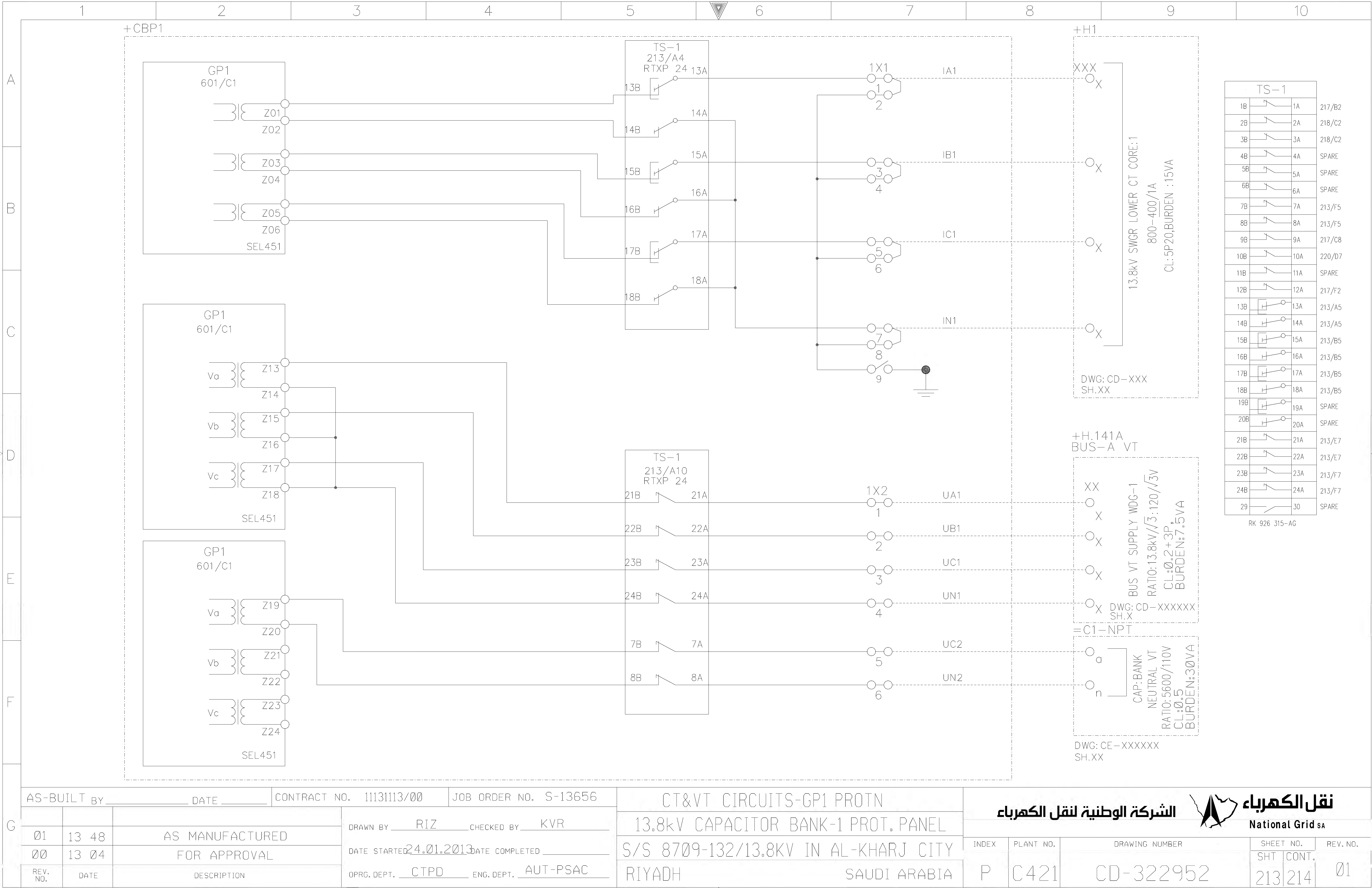
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|   |                   |       |                 |  |                          |                         |                       |                      |   |                                      |                              |       |           |                |  |  |  |           |    |
|---|-------------------|-------|-----------------|--|--------------------------|-------------------------|-----------------------|----------------------|---|--------------------------------------|------------------------------|-------|-----------|----------------|--|--|--|-----------|----|
| G | AS-BUILT BY _____ |       | DATE _____      |  | CONTRACT NO. 11131113/00 |                         | JOB ORDER NO. S-13656 |                      | AC SUPPLY FOR ILLUMINATION & POWER SOCKET |                                      | الشركة الوطنية لنقل الكهرباء |       |           |                |  |  نقل الكهرباء |  |           |    |
|   |                   |       |                 |  |                          |                         |                       |                      | 13.8kV CAPACITOR BANK-1 PROT. PANEL       |                                      | National Grid SA             |       |           |                |  |  |  |           |    |
|   | 01                | 13 48 | AS MANUFACTURED |  |                          | DRAWN BY RIZ            |                       | CHECKED BY KVR       |   | S/S 8709-132/13.8KV IN AL-KHARJ CITY |                              | INDEX | PLANT NO. | DRAWING NUMBER |  | SHEET NO.  |  | REV. NO.  |    |
|   | 00                | 13 04 | FOR APPROVAL    |  |                          | DATE STARTED 24.01.2013 |                       | DATE COMPLETED _____ |   | RIYADH SAUDI ARABIA                  |                              | -     | C421      | CD-322952      |  | SHT 211  |  | CONT. 212 | 01 |
|   | REV. NO.          | DATE  | DESCRIPTION     |  |                          | OPRG. DEPT. CTPD        |                       | ENG. DEPT. AUT-PSAC  |   |                                      |                              |       |           |                |  |  |  |           |    |



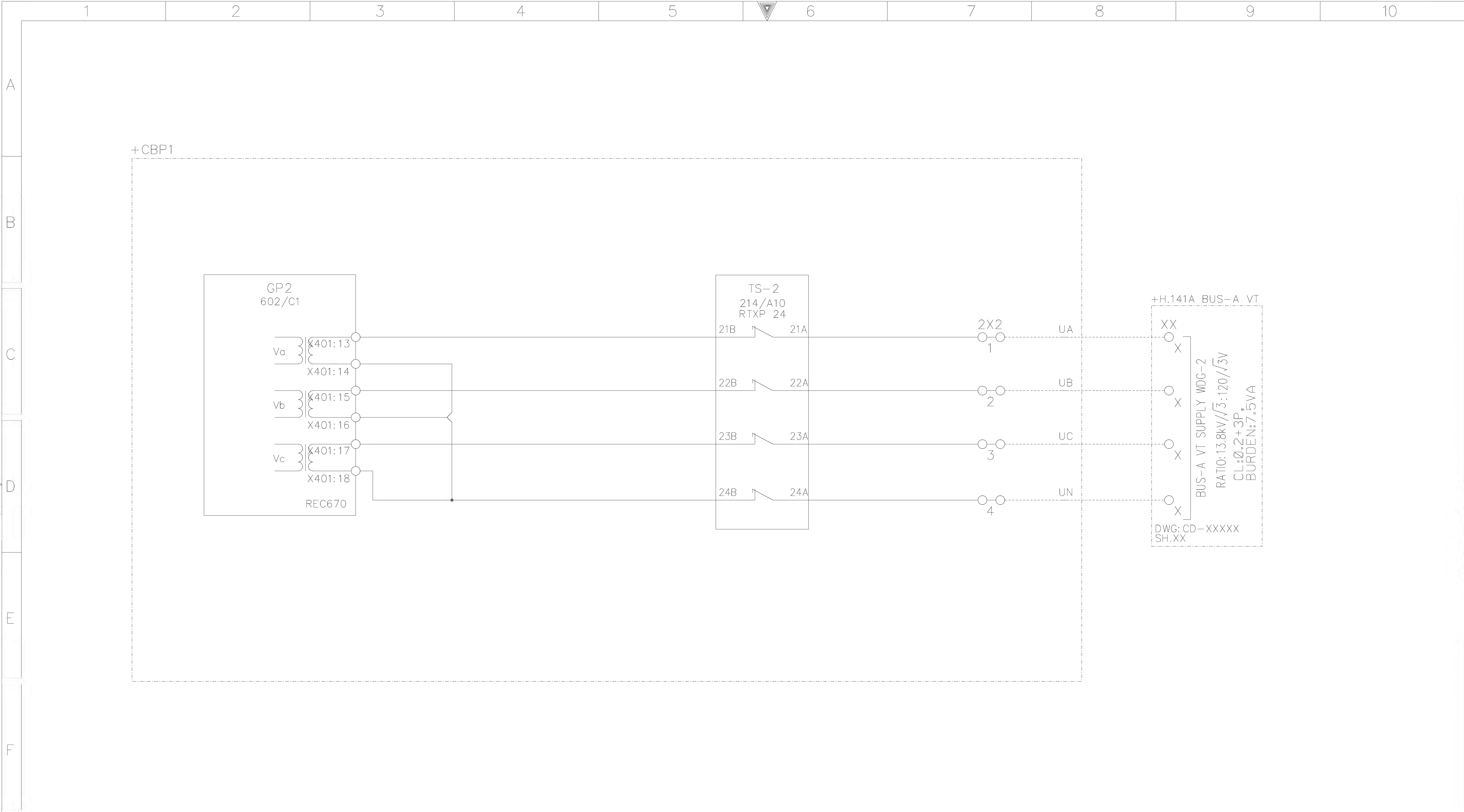
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|------------------------------|----------|-------|--------------------------|--|--|--|--------------------------------------|--|---|-----------|----------------|--|-----------|-------|----------|
| AS-BUILT BY _____ DATE _____ |          |       | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656  |  | AC SUPPLY AUXILARY CONTACTS          |  | <div>الشركة الوطنية لنقل الكهرباء</div> <div>National Grid sa</div> |           |                |  |           |       |          |
|                              |          |       |                          |  |  |  | 13.8kv CAPACITOR BANK-1 PROT. PANEL  |  |   |           |                |  |           |       |          |
| G                            | 01       | 13 48 | AS MANUFACTURED          |  | DRAWN BY _____ RIZ _____ CHECKED BY _____ KVR _____          |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  | INDEX   | PLANT NO. | DRAWING NUMBER |  | SHEET NO. |       | REV. NO. |
|                              | 00       | 13 04 | FOR APPROVAL             |  | DATE STARTED 24.01.2013 DATE COMPLETED _____                 |  | RIYADH SAUDI ARABIA                  |  | P   | C421      | CD-322952      |  | SHT       | CONT. | 01       |
|                              | REV. NO. | DATE  | DESCRIPTION              |  | OPRG. DEPT. _____ CTPD _____ ENG. DEPT. _____ AUT-PSAC _____ |  |                                      |  |   |           |                |  | 212       | 213   |          |



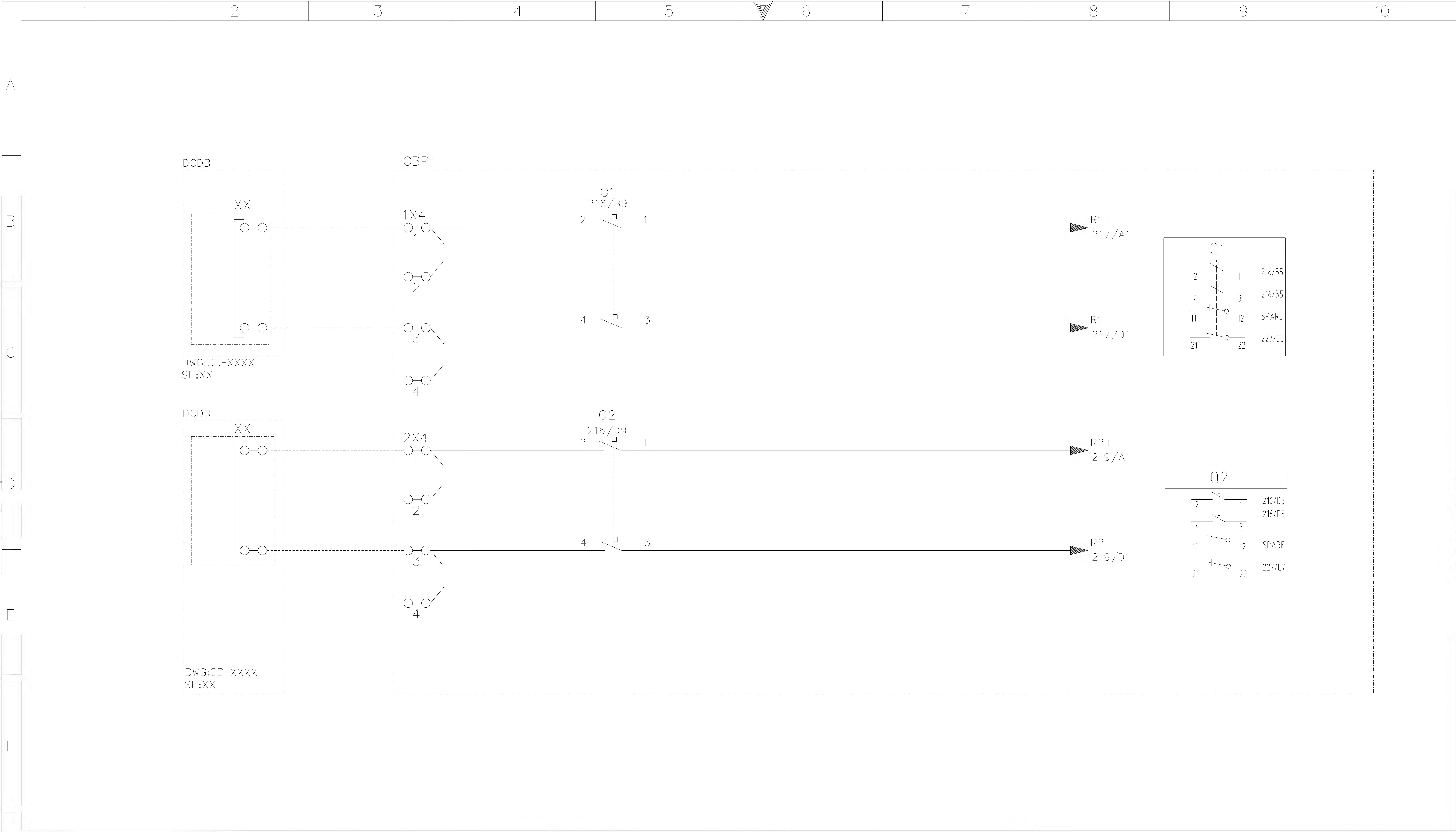
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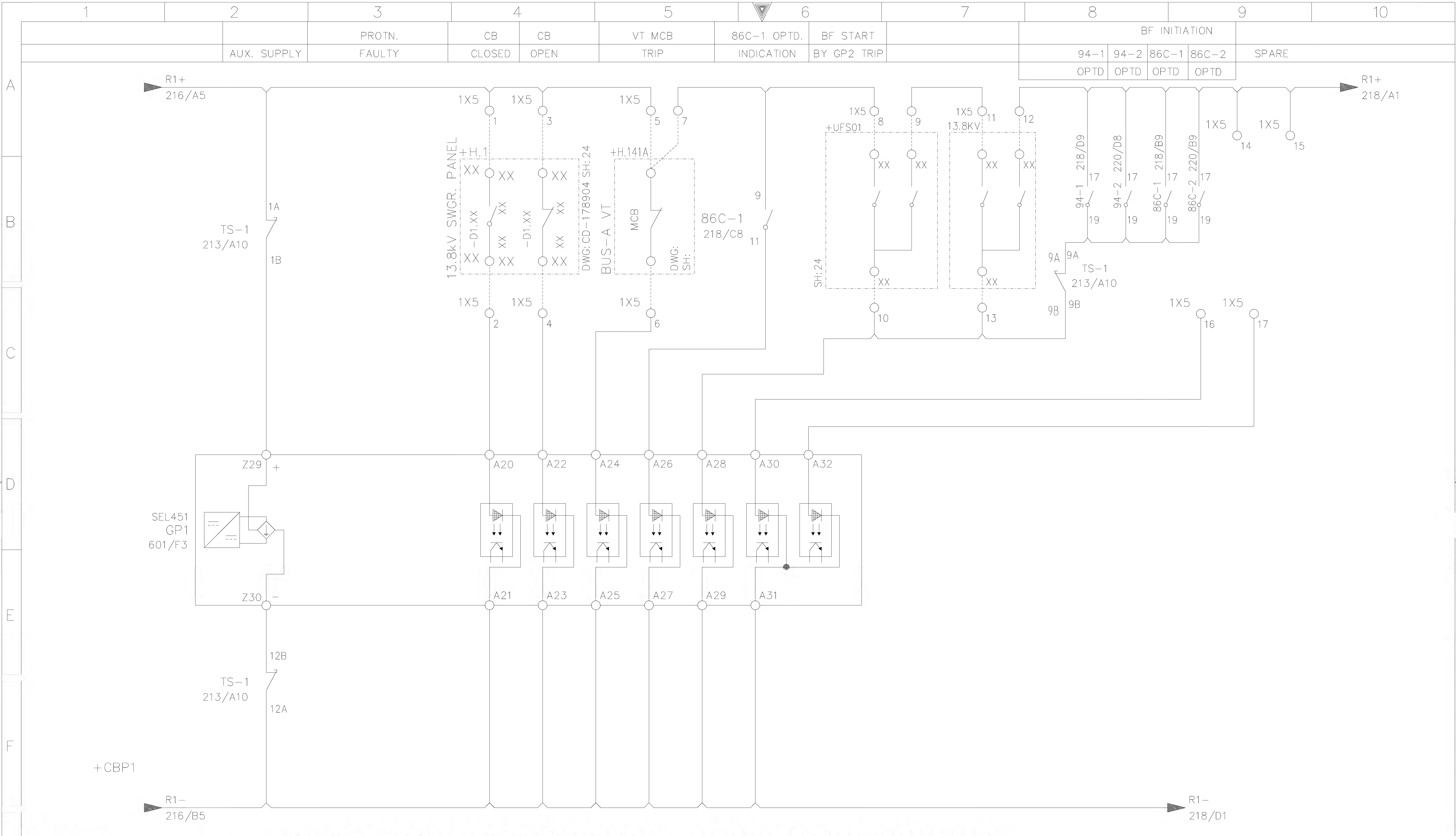




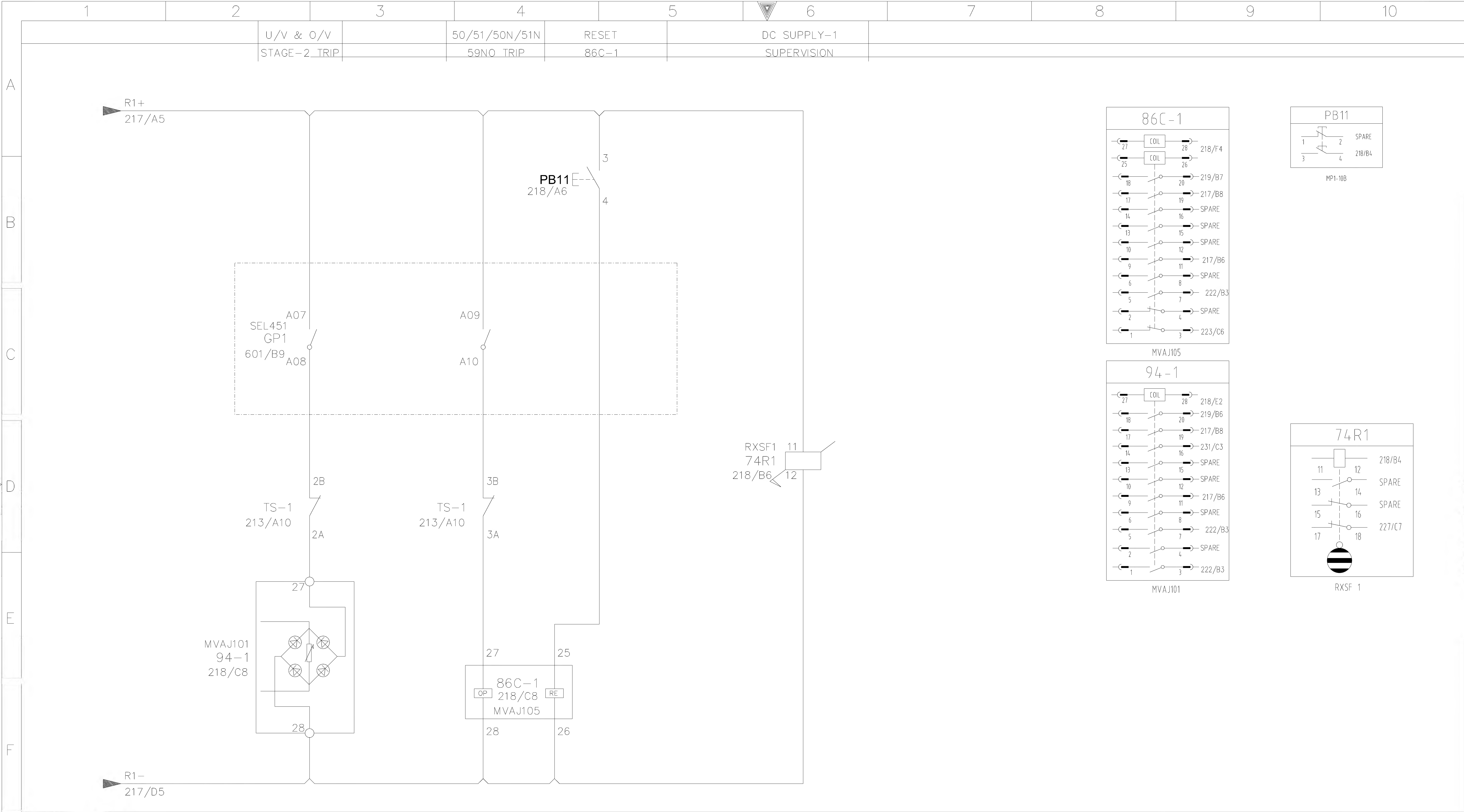
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|---|-------------------|-------|-----------------|--------------------------|-------------------------|-----------------------|----------------------|-----------------------|--------------------------------------|--|-------|-----------|----------------|--|-----------|-----------|----------|
| G | AS-BUILT BY _____ |       | DATE _____      | CONTRACT NO. 11131113/00 |                         | JOB ORDER NO. S-13656 |                      | VT CIRCUITS-GP2 PROTN |                                      | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |       |           |                |  |           |           |          |
|   | 01                | 13 48 | AS MANUFACTURED |                          | DRAWN BY RIZ            |                       | CHECKED BY KVR       |                       | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  |       |           |                |  |           |           |          |
|   | 00                | 13 04 | FOR APPROVAL    |                          | DATE STARTED 24.01.2013 |                       | DATE COMPLETED _____ |                       | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  | INDEX | PLANT NO. | DRAWING NUMBER |  | SHEET NO. |           | REV. NO. |
|   | REV. NO.          | DATE  | DESCRIPTION     |                          | OPRG. DEPT. CTPD        |                       | ENG. DEPT. AUT-PSAC  |                       | RIYADH SAUDI ARABIA                  |  | P     | C421      | CD-322952      |  | SHT 215   | CONT. 216 | 01       |
|   |                   |       |                 |                          |                         |                       |                      |                       |                                      |  |       |           |                |  |           |           |          |




|                              |          |       |                          |  |  |  |                                      |     |  |           |                |  |           |       |          |
|------------------------------|----------|-------|--------------------------|--|--|--|--------------------------------------|-----|--|-----------|----------------|--|-----------|-------|----------|
| AS-BUILT BY _____ DATE _____ |          |       | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656                                  |  | DC SUPPLY DISTRIBUTION               |     | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |           |                |  |           |       |          |
|                              |          |       |                          |  |  |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |     |  |           |                |  |           |       |          |
| G                            | 01       | 13 48 | AS MANUFACTURED          |  | DRAWN BY _____ RIZ _____ CHECKED BY _____ KVR          |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |     | INDEX  | PLANT NO. | DRAWING NUMBER |  | SHEET NO. |       | REV. NO. |
|                              | 00       | 13 04 | FOR APPROVAL             |  | DATE STARTED 24.01.2013 DATE COMPLETED _____           |  | RIYADH SAUDI ARABIA                  |     | P  | C421      | CD-322952      |  | SHT       | CONT. | 01       |
|                              | REV. NO. | DATE  | DESCRIPTION              |  | OPRG. DEPT. _____ CTPD _____ ENG. DEPT. _____ AUT-PSAC |  | 216                                  | 217 |  |           |                |  |           |       |          |

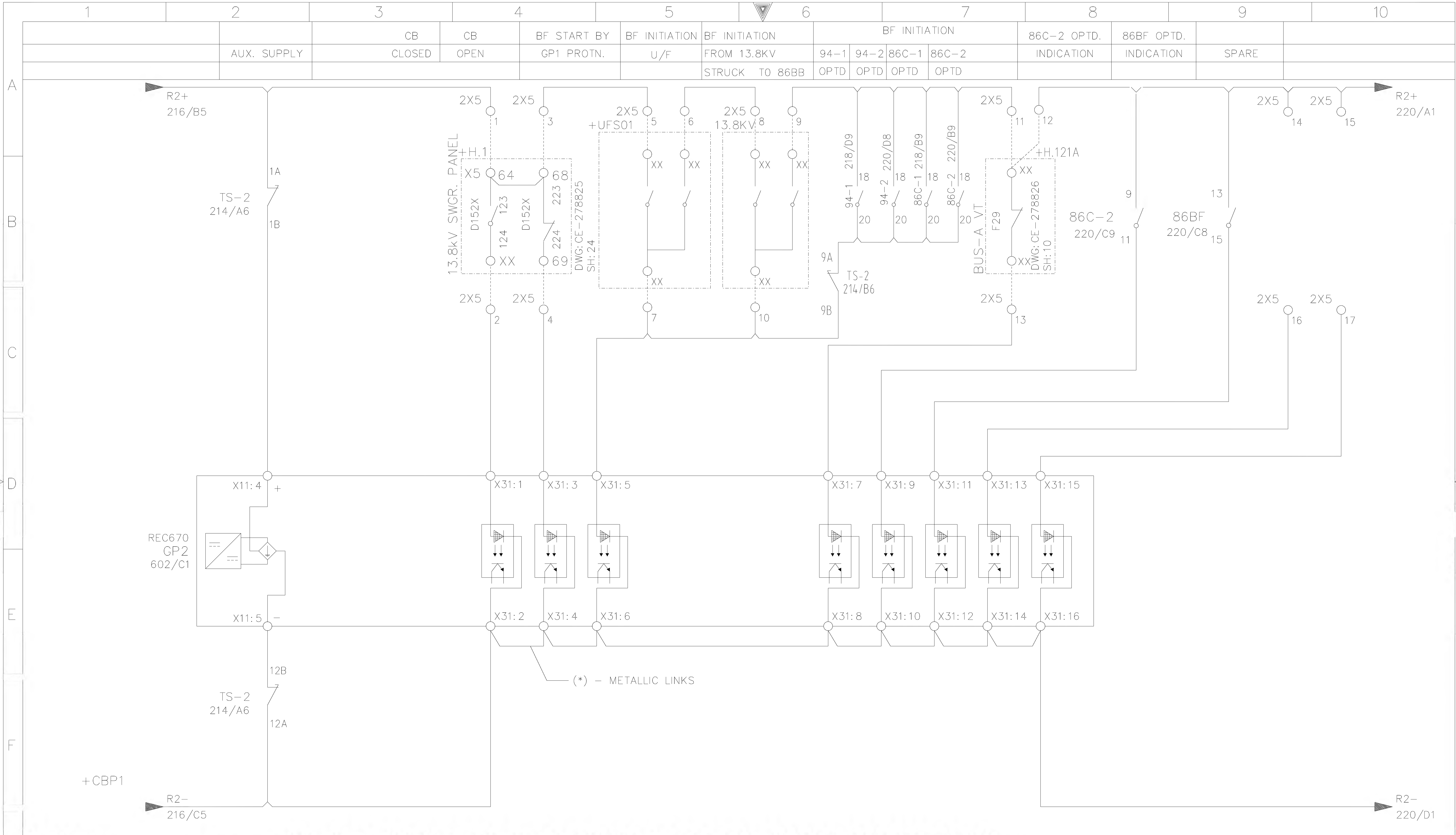


|   |  |  |                              |  |                                 |  |                                      |  |                |  |  |  |
|---|--|--|------------------------------|--|---------------------------------|--|--------------------------------------|--|----------------|--|--|--|
| AS-BUILT BY _____ DATE _____                        |  |  | CONTRACT NO. 11131113/00     |  | JOB ORDER NO. S-13656           |  | DC LOGIC CIRCUITS-GP1 PROTECTION     |  |                |  | الشركة الوطنية لنقل الكهرباء<br>National Grid SA |  |
| DRAWN BY _____ RIZ _____ CHECKED BY _____ KVR _____ |  |  | DATE STARTED 24.01.2013      |  | DATE COMPLETED _____            |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  |                |  |  |  |
| AS MANUFACTURED                                     |  |  | DATE STARTED 24.01.2013      |  | DATE COMPLETED _____            |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |                |  | INDEX  |  |
| FOR APPROVAL  |  |  | OPRG. DEPT. _____ CTPD _____ |  | ENG. DEPT. _____ AUT-PSAC _____ |  | RIYADH SAUDI ARABIA                  |  |                |  | P  |  |
| REV. NO. _____ DATE _____                           |  |  | DESCRIPTION _____            |  | SHEET NO. _____                 |  | SHT _____ CONT. _____                |  | REV. NO. _____ |  | 01   |  |

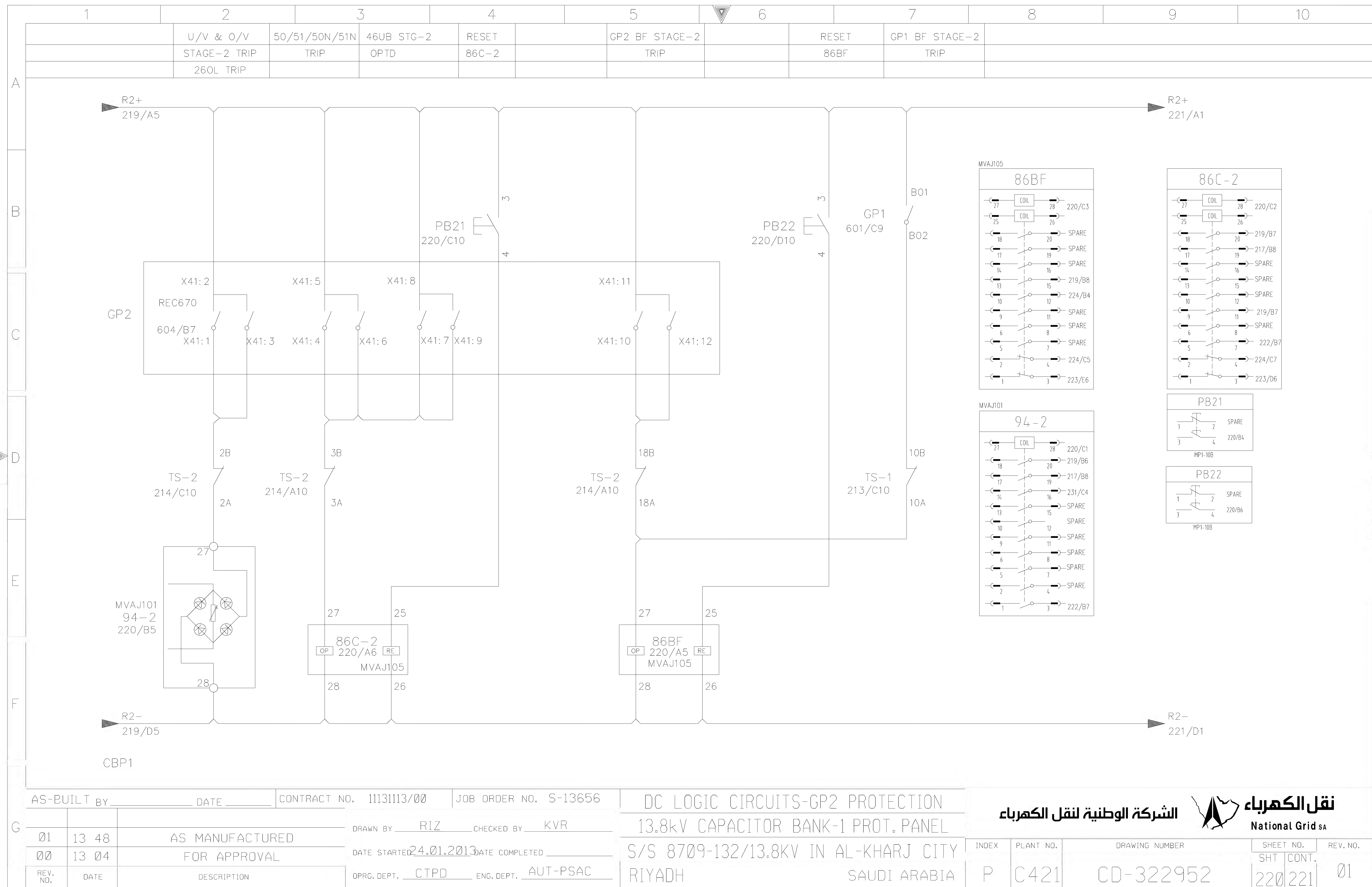


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|---|-------------------|-------|-----------------|--|--------------------------|-------------------------|-----------------------|----------------------|---------------------------------|--------------------------------------|--|---------|----------------|--------------------------|--|-----------------------------|--|
| G | AS-BUILT BY _____ |       | DATE _____      |  | CONTRACT NO. 11131113/00 |                         | JOB ORDER NO. S-13656 |                      | DC LOGIC CIRCUIT-GP1 PROTECTION |                                      | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div> |         |                |                          |  |                             |  |
|   | 01                | 13 48 | AS MANUFACTURED |  |                          | DRAWN BY RIZ            |                       | CHECKED BY KVR       |                                 | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  |         |                |                          |  |                             |  |
|   | 00                | 13 04 | FOR APPROVAL    |  |                          | DATE STARTED 24.01.2013 |                       | DATE COMPLETED _____ |                                 | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |         |                |                          |  |                             |  |
|   | REV. NO.          | DATE  | DESCRIPTION     |  |                          | OPRG. DEPT. CTPD        |                       | ENG. DEPT. AUT-PSAC  |                                 | RIYADH SAUDI ARABIA                  |  | INDEX P | PLANT NO. C421 | DRAWING NUMBER CD-322952 |  | SHEET NO. SHT 218 CONT. 219 |  |



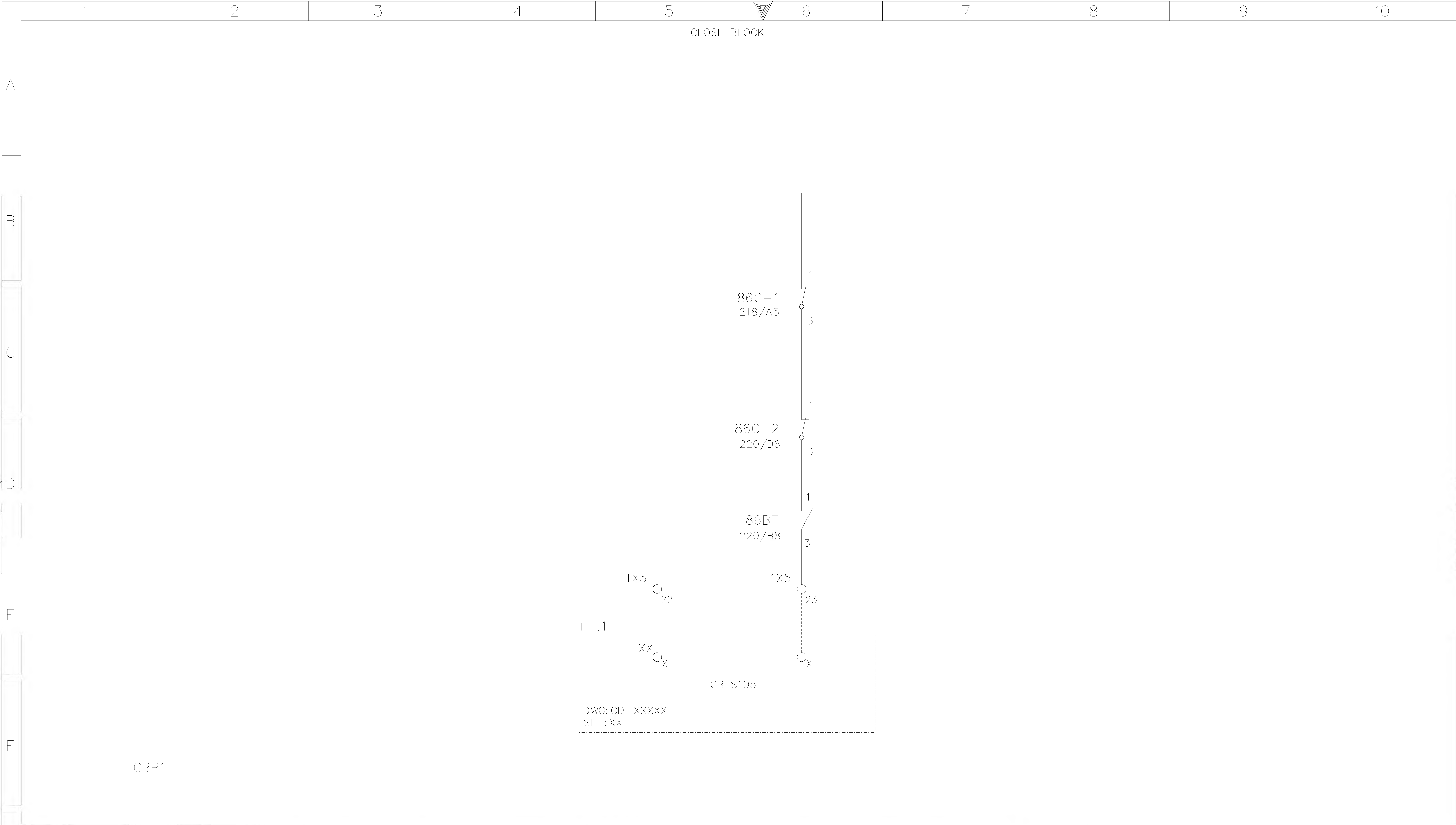


|                              |          |       |                          |  |                         |  |                                     |  |   |  |       |           |                |  |           |           |          |
|------------------------------|----------|-------|--------------------------|--|-------------------------|--|-------------------------------------|--|---|--|-------|-----------|----------------|--|-----------|-----------|----------|
| AS-BUILT BY _____ DATE _____ |          |       | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656   |  | DC LOGIC CIRCUITS-GP2 PROTECTION    |  | <div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid SA</div> |  |       |           |                |  |           |           |          |
|                              |          |       | DRAWN BY RIZ             |  | CHECKED BY KVR          |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL |  |   |  |       |           |                |  |           |           |          |
| G                            | 01       | 13 48 | AS MANUFACTURED          |  | DATE STARTED 24.01.2013 |  | DATE COMPLETED _____                |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY  |  | INDEX | PLANT NO. | DRAWING NUMBER |  | SHEET NO. |           | REV. NO. |
|                              | 00       | 13 04 | FOR APPROVAL             |  | OPRG. DEPT. CTPD        |  | ENG. DEPT. AUT-PSAC                 |  | RIYADH SAUDI ARABIA   |  | P     | C421      | CD-322952      |  | SHT 219   | CONT. 220 | 01       |
|                              | REV. NO. | DATE  | DESCRIPTION              |  |                         |  |                                     |  |   |  |       |           |                |  |           |           |          |





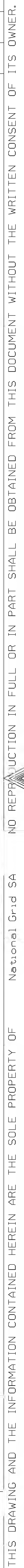


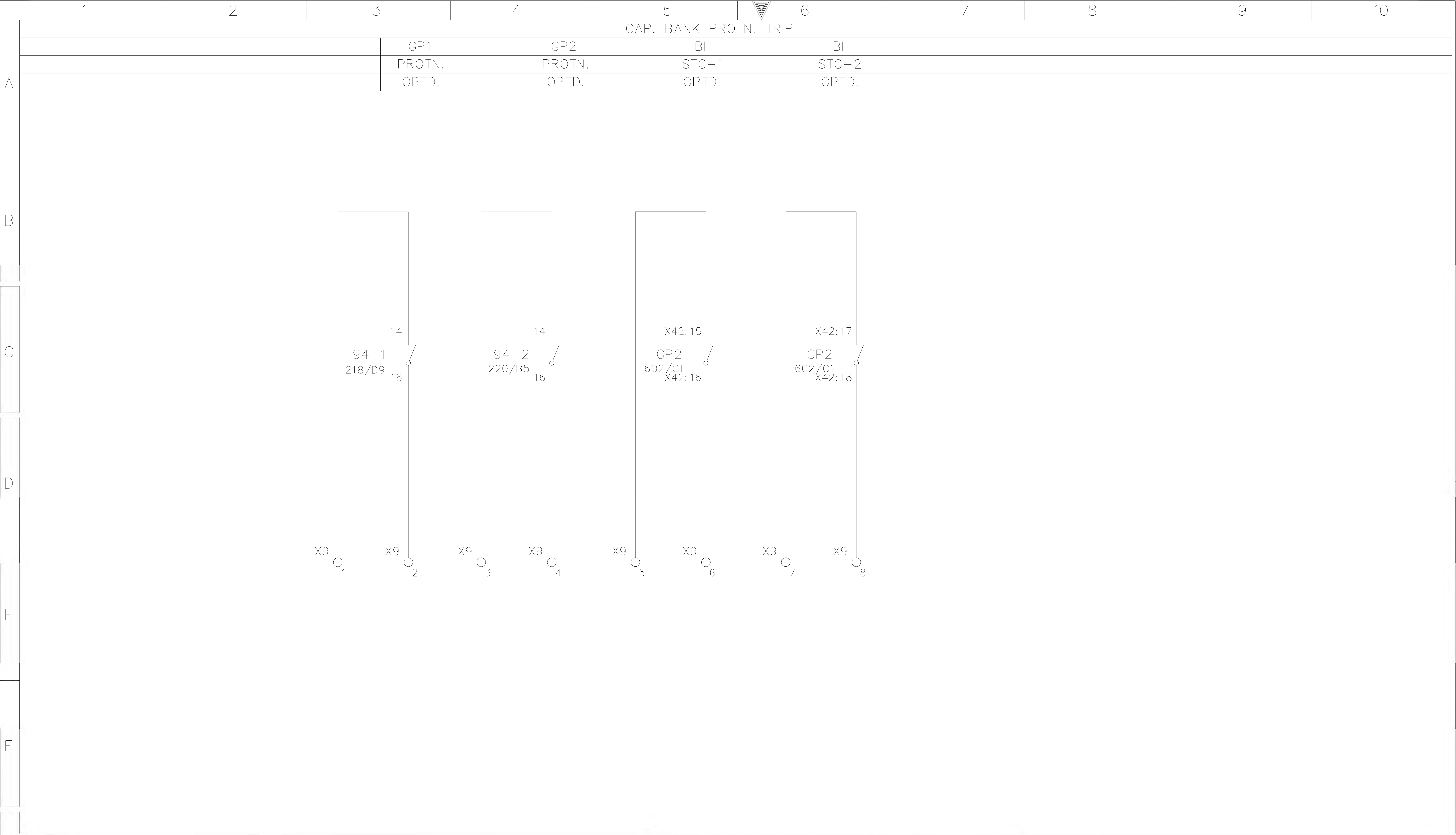


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|---|------------------------------|-------|--------------------------|-----------------------------|--------------------------------------|--|---|--------------|----------------|------|-----------|--|----------|-----------|
| G | AS-BUILT BY _____ DATE _____ |       | CONTRACT NO. 11131113/00 | JOB ORDER NO. S-13656       | 13.8kV CB S105 CLOSE BLOCK CIRCUIT   |  | <div>الشركة الوطنية لنقل الكهرباء</div> <div> <b>نقل الكهرباء</b><br/>National Grid sa</div> |              |                |      |           |  |          |           |
|   | 01                           | 13 48 | AS MANUFACTURED          |                             | 13.8kV CAPACITOR BANK-1 PROT.PANEL   |  |   |              |                |      |           |  |          |           |
|   | 00                           | 13 04 | FOR APPROVAL             |                             | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  | INDEX   | PLANT NO.    | DRAWING NUMBER |      | SHEET NO. |  | REV. NO. |           |
|   | REV. NO.                     | DATE  | DESCRIPTION              |                             | OPRG. DEPT. CTPD                     | ENG. DEPT. AUT-PSAC                          | RIYADH  | SAUDI ARABIA | P              | C421 | CD-322952 |  | SHT 223  | CONT. 224 |
|   |                              |       |                          | DRAWN BY RIZ CHECKED BY KVR |                                      | DATE STARTED 24.01.2013 DATE COMPLETED _____ |   |              |                |      |           |  |          |           |

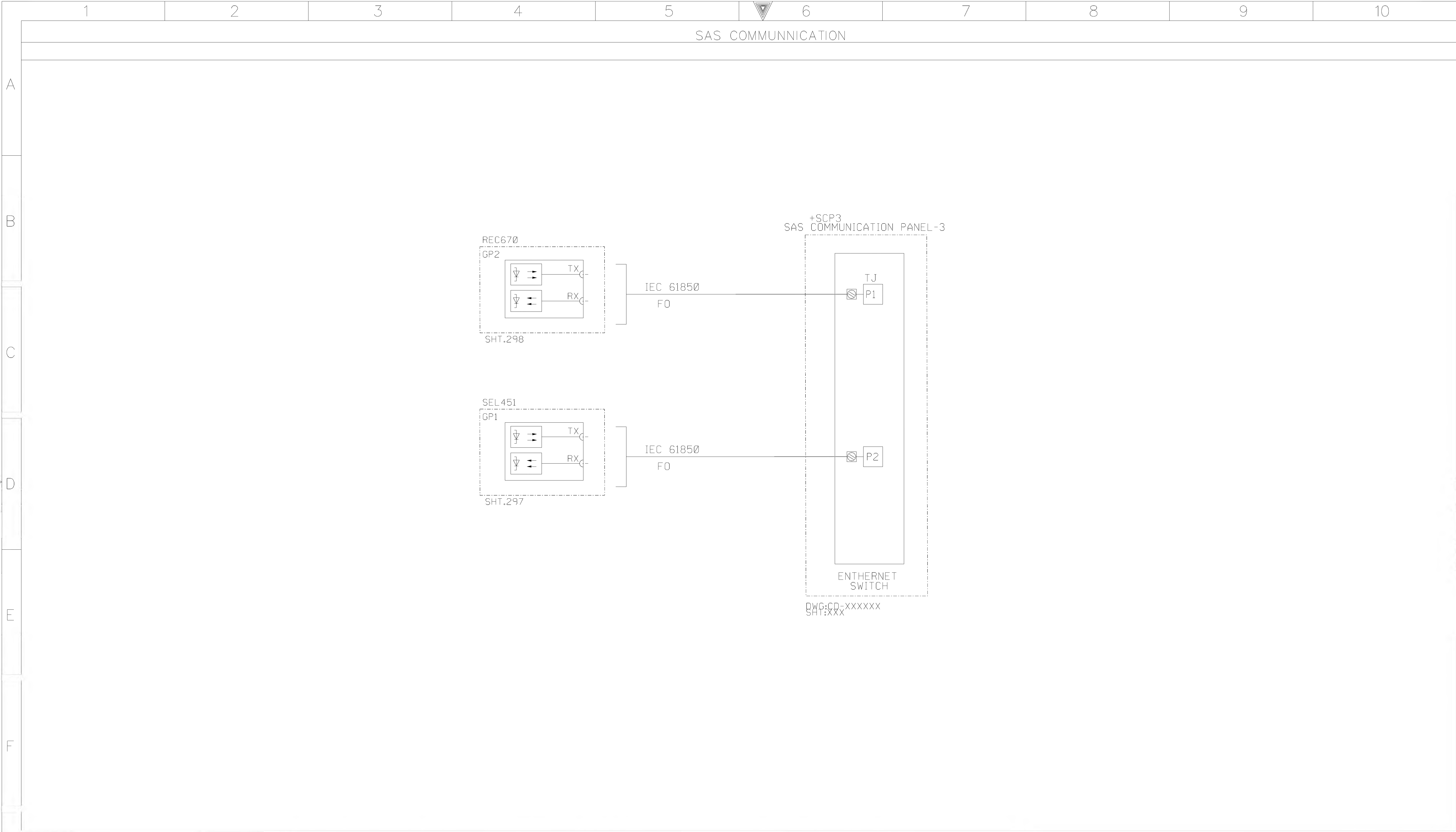








|   |                              |       |                          |  |                |                                      |  |            |                   |                             |     |                        |  |                |
|---|------------------------------|-------|--------------------------|--|----------------|--------------------------------------|--|------------|-------------------|-----------------------------|-----|------------------------|--|----------------|
| G | AS-BUILT BY _____ DATE _____ |       | CONTRACT NO. 11131113/00 | JOB ORDER NO. S-13656                        | SPARE CONTACTS |                                      | الشركة الوطنية لنقل الكهرباء<br>National Grid sa |            |                   |                             |     |                        |  |                |
|   | 01                           | 13 48 | AS MANUFACTURED          | DRAWN BY RIZ CHECKED BY KVR                  |                | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  | INDEX<br>P | PLANT NO.<br>C421 | DRAWING NUMBER<br>CD-322952 |     | SHEET NO.<br>SHT CONT. |  | REV. NO.<br>01 |
|   | 00                           | 13 04 | FOR APPROVAL             | DATE STARTED 24.01.2013 DATE COMPLETED _____ |                | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |            |                   | 231                         | 245 |                        |  |                |
|   | REV. NO.                     | DATE  | DESCRIPTION              | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC         |                | RIYADH SAUDI ARABIA                  |  |            |                   |                             |     |                        |  |                |



|                              |  |  |                          |  |                       |  |                                      |  |  |
|------------------------------|--|--|--------------------------|--|-----------------------|--|--------------------------------------|--|--|
| AS-BUILT BY _____ DATE _____ |  |  | CONTRACT NO. 11131113/00 |  | JOB ORDER NO. S-13656 |  | SAS COMMUNICATION                    |  |  |
| 01 13 48 AS MANUFACTURED     |  |  | DRAWN BY RIZ             |  | CHECKED BY KVR        |  | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |  |  |
| 00 13 04 FOR APPROVAL        |  |  | DATE STARTED 24.01.2013  |  | DATE COMPLETED _____  |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |  |  |
| REV. NO. DATE DESCRIPTION    |  |  | OPRG. DEPT. CTPD         |  | ENG. DEPT. AUT-PSAC   |  | RIYADH SAUDI ARABIA                  |  |  |

|       |           |                |           |       |          |
|-------|-----------|----------------|-----------|-------|----------|
| INDEX | PLANT NO. | DRAWING NUMBER | SHEET NO. |       | REV. NO. |
| P     | C421      | CD-322952      | SHT       | CONT. | 01       |
|       |           |                | 245       | 601   |          |



الشركة الوطنية لنقل الكهرباء

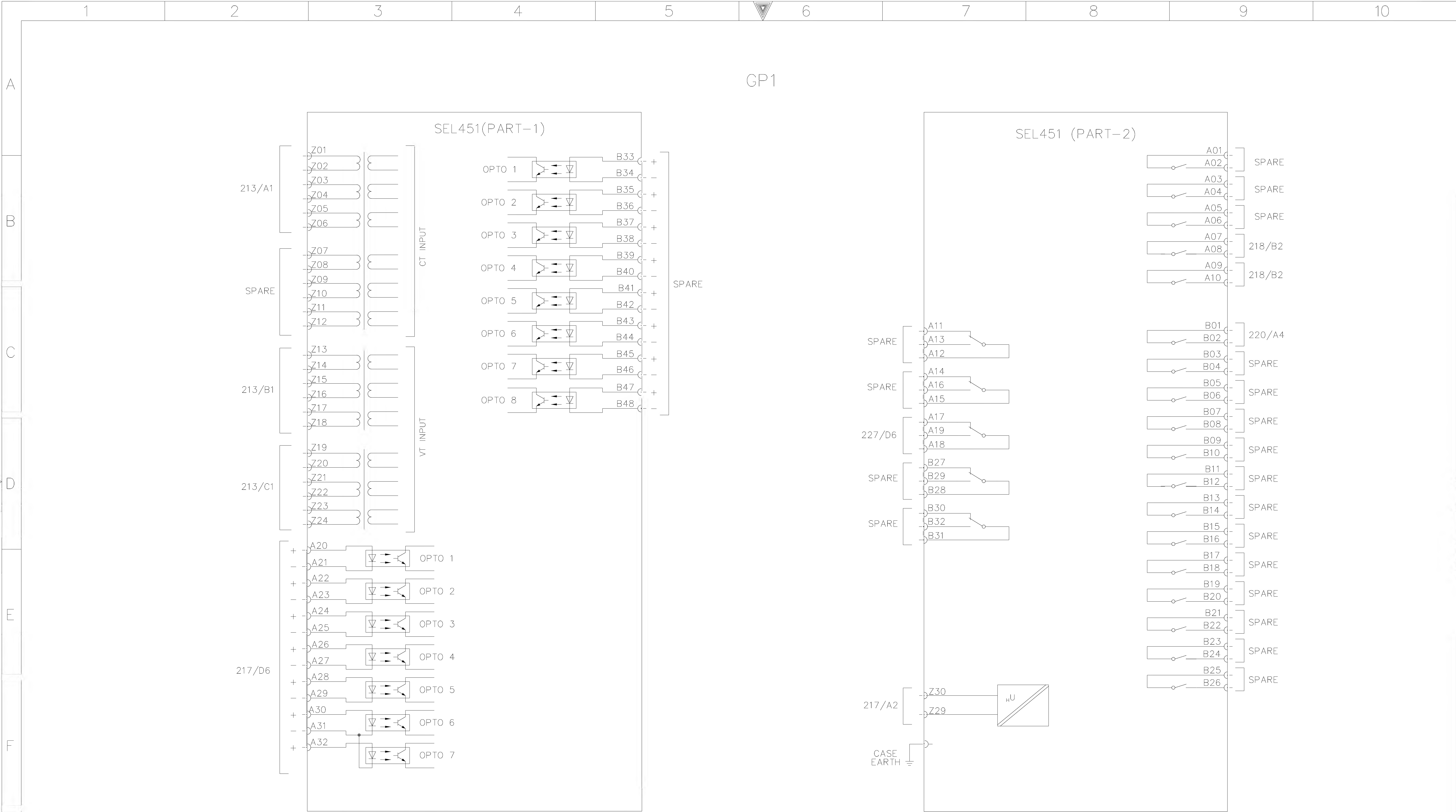
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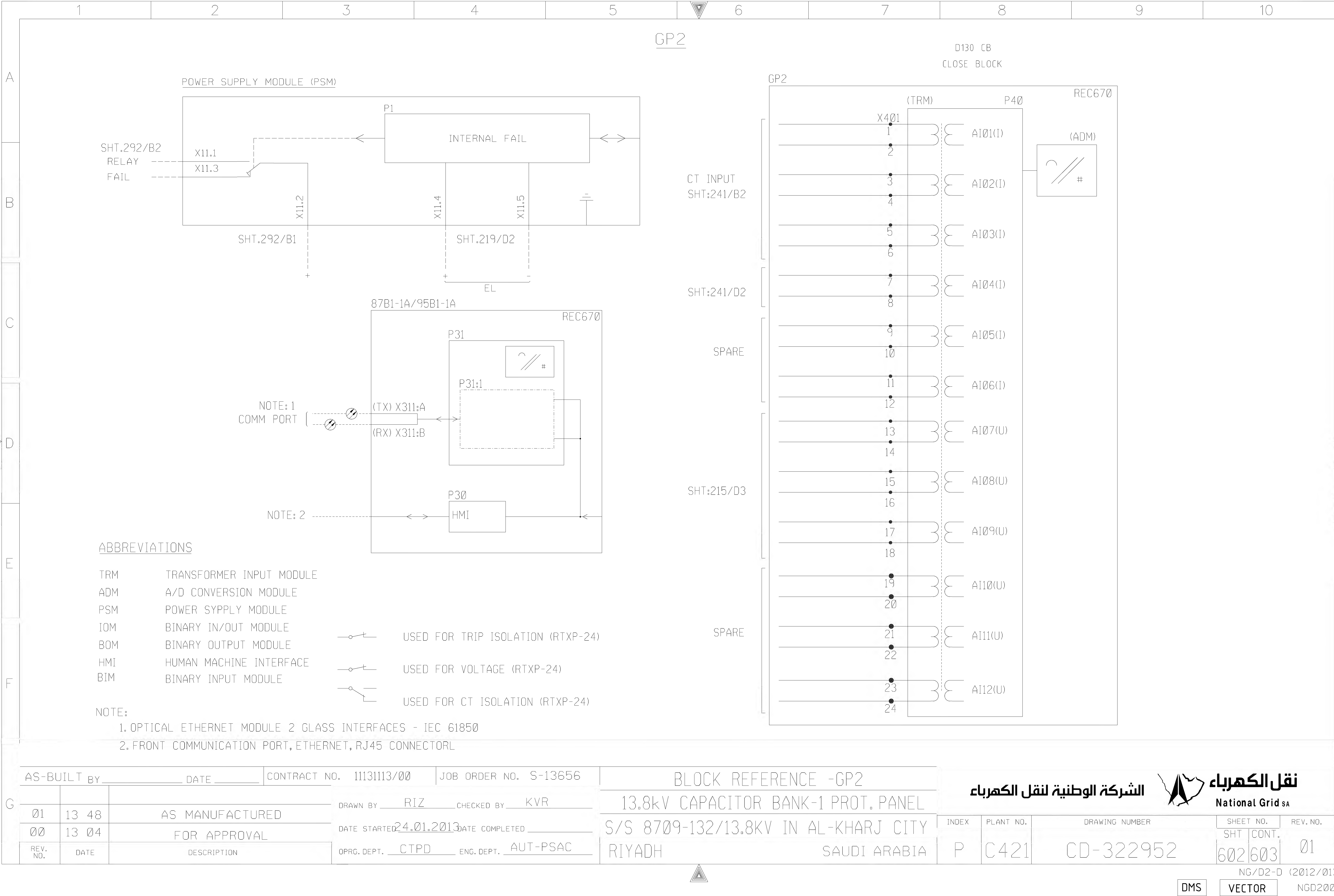
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|                   |          |            |                 |                          |                         |                       |                      |                     |                                      |                              |       |           |                |  |   |       |              |    |
|-------------------|----------|------------|-----------------|--------------------------|-------------------------|-----------------------|----------------------|---------------------|--------------------------------------|------------------------------|-------|-----------|----------------|--|---|-------|--------------|----|
| AS-BUILT BY _____ |          | DATE _____ |                 | CONTRACT NO. 11131113/00 |                         | JOB ORDER NO. S-13656 |                      | BLOCK REFERENCE-GP1 |                                      | الشركة الوطنية لنقل الكهرباء |       |           |                |  |  |       | نقل الكهرباء |    |
| G                 | 01       | 13 48      | AS MANUFACTURED |                          | DRAWN BY RIZ            |                       | CHECKED BY KVR       |                     | 13.8kV CAPACITOR BANK-1 PROT. PANEL  |                              | INDEX | PLANT NO. | DRAWING NUMBER |  | SHEET NO.   |       | REV. NO.     |    |
|                   | 00       | 13 04      | FOR APPROVAL    |                          | DATE STARTED 24.01.2013 |                       | DATE COMPLETED _____ |                     | S/S 8709-132/13.8KV IN AL-KHARJ CITY |                              |       |           |                |  | SHT   | CONT. |              |    |
|                   | REV. NO. | DATE       | DESCRIPTION     |                          | OPRG. DEPT. CTPD        |                       | ENG. DEPT. AUT-PSAC  |                     | RIYADH SAUDI ARABIA                  |                              |       |           |                |  | 601   | 602   |              | 01 |





AS-BUILT BY \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACT NO. 11131113/00

JOB ORDER NO. S-13656

BLOCK REFERENCE -GP2

13.8kV CAPACITOR BANK-1 PROT. PANEL

S/S 8709-132/13.8KV IN AL-KHARJ CITY

RIYADH

SAUDI ARABIA

الشركة الوطنية لنقل الكهرباء

نقل الكهرباء

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|-------------------------------------|--|----------------|--------------------------------------|----------|-----------------------|---------------------|--|--------------------|---|----|------------------------------|---|---|--------------------------|-----|-----------------------|-------|----------------------|-----------|--|----|---|-------|-------|--|-----------------|--|-----------------------------|------------|---|----|-------|---|-------|-------|--------------|---------|--|--|---|----------|---|--|------|--|-------------|------------|--------------------------------------|---|-------------------------------------|---|--|--------------------------------------|----|--------------------|---------------------|--|---|-------|-----------|----------------|-----------|----------|---|------------|-----------|----------------------|-------|---|--|-------|----|-------------|--|--|---|-------|---|--|--|--|--|------------|---|---|-------|---|--|-------|----|------------|--|--|---|-------|---|--|--|--|--|------------|---|---|-------|----|--|-------|----|-----------|--|--|---|-------|----|--|--|--|--|------------|---|---|-------|----|--|-------|----|-------|--|--|---|-------|----|--|--|--|--|------------|---|---|-------|----|--|-------|----|-------|--|--|---|-------|----|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|-----|--|--|--|--|--|--|---|-------|---|--|-------|----|-------|--|--|---|-------|---|--|--|--|--|--|--|---|-------|---|--|-------|----|-------|--|--|---|-------|---|--|--|--|--|--|--|---|-------|---|--|-------|----|-------|--|--|---|-------|---|--|--|--|--|--|--|---|-------|---|--|-------|----|-------|--|--|---|-------|---|--|--|--|--|--|--|---|-------|---|--|-------|----|-------|--|--|---|-------|----|--|--|--|--|--|--|---|-------|----|--|-------|----|-------|--|--|---|-------|----|--|--|--|--|--|--|---|-------|----|--|-------|----|-------|--|--|---|-------|----|--|--|--|--|--|--|---|-------|----|--|-------|----|-------|--|--|---|-------|----|--|--|--|--|
|                                     | 1  | 2              | 3                                    | 4        | 5                     | 6                   | 7  | 8                  | 9 | 10 |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| A                                   | GP2  |                |                                      |          |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| B                                   | BINARY INPUT CARD  |                |                                      |          |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| C                                   | <div><div>GP2</div><div>BIM P3<br/>REC670</div><div><div>LOCATION=P3</div><div>PLANT ADAPTED<br/>CONFIGURATION</div></div><table><tr><td>SHT.219/D4</td><td>{</td><td>+</td><td>-----</td><td>X31</td><td></td><td>BI.01</td><td>//</td><td>CB CLOSED</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>1</td><td></td><td></td><td></td><td></td></tr><tr><td>SHT.219/D4</td><td>{</td><td>+</td><td>-----</td><td>2</td><td></td><td>BI.02</td><td>//</td><td>CB OPEN</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>3</td><td></td><td></td><td></td><td></td></tr><tr><td>SHT.219/D5</td><td>{</td><td>+</td><td>-----</td><td>4</td><td></td><td>BI.03</td><td>//</td><td>BF START BY<br/>GP1</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>5</td><td></td><td></td><td></td><td></td></tr><tr><td>SHT.219/D5</td><td>{</td><td>+</td><td>-----</td><td>6</td><td></td><td>BI.04</td><td>//</td><td>VT MCB TRIP</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>7</td><td></td><td></td><td></td><td></td></tr><tr><td>SHT.219/D6</td><td>{</td><td>+</td><td>-----</td><td>8</td><td></td><td>BI.05</td><td>//</td><td>86C-2 OPTD</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>9</td><td></td><td></td><td></td><td></td></tr><tr><td>SHT.219/D6</td><td>{</td><td>+</td><td>-----</td><td>10</td><td></td><td>BI.06</td><td>//</td><td>86BF OPTD</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>11</td><td></td><td></td><td></td><td></td></tr><tr><td>SHT.219/D7</td><td>{</td><td>+</td><td>-----</td><td>12</td><td></td><td>BI.07</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>13</td><td></td><td></td><td></td><td></td></tr><tr><td>SHT.219/D7</td><td>{</td><td>+</td><td>-----</td><td>14</td><td></td><td>BI.08</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>15</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td>16</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td>X32</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>+</td><td>-----</td><td>1</td><td></td><td>BI.09</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>2</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>+</td><td>-----</td><td>3</td><td></td><td>BI.10</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>4</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>+</td><td>-----</td><td>5</td><td></td><td>BI.11</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>6</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>+</td><td>-----</td><td>7</td><td></td><td>BI.12</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>8</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>+</td><td>-----</td><td>9</td><td></td><td>BI.13</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>10</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>+</td><td>-----</td><td>11</td><td></td><td>BI.14</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>12</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>+</td><td>-----</td><td>13</td><td></td><td>BI.15</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>14</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>+</td><td>-----</td><td>15</td><td></td><td>BI.16</td><td>//</td><td>SPARE</td></tr><tr><td></td><td></td><td>-</td><td>-----</td><td>16</td><td></td><td></td><td></td><td></td></tr></table></div> |                |                                      |          |                       |                     |  |                    |   |    | SHT.219/D4                   | { | + | -----                    | X31 |                       | BI.01 | //                   | CB CLOSED |  |    | - | ----- | 1     |  |                 |  |                             | SHT.219/D4 | { | +  | ----- | 2 |       | BI.02 | //           | CB OPEN |  |  | - | -----    | 3 |  |      |  |             | SHT.219/D5 | {                                    | + | -----                               | 4 |  | BI.03                                | // | BF START BY<br>GP1 |                     |  | - | ----- | 5         |                |           |          |   | SHT.219/D5 | {         | +                    | ----- | 6 |  | BI.04 | // | VT MCB TRIP |  |  | - | ----- | 7 |  |  |  |  | SHT.219/D6 | { | + | ----- | 8 |  | BI.05 | // | 86C-2 OPTD |  |  | - | ----- | 9 |  |  |  |  | SHT.219/D6 | { | + | ----- | 10 |  | BI.06 | // | 86BF OPTD |  |  | - | ----- | 11 |  |  |  |  | SHT.219/D7 | { | + | ----- | 12 |  | BI.07 | // | SPARE |  |  | - | ----- | 13 |  |  |  |  | SHT.219/D7 | { | + | ----- | 14 |  | BI.08 | // | SPARE |  |  | - | ----- | 15 |  |  |  |  |  |  |  |  | 16 |  |  |  |  |  |  |  |  | X32 |  |  |  |  |  |  | + | ----- | 1 |  | BI.09 | // | SPARE |  |  | - | ----- | 2 |  |  |  |  |  |  | + | ----- | 3 |  | BI.10 | // | SPARE |  |  | - | ----- | 4 |  |  |  |  |  |  | + | ----- | 5 |  | BI.11 | // | SPARE |  |  | - | ----- | 6 |  |  |  |  |  |  | + | ----- | 7 |  | BI.12 | // | SPARE |  |  | - | ----- | 8 |  |  |  |  |  |  | + | ----- | 9 |  | BI.13 | // | SPARE |  |  | - | ----- | 10 |  |  |  |  |  |  | + | ----- | 11 |  | BI.14 | // | SPARE |  |  | - | ----- | 12 |  |  |  |  |  |  | + | ----- | 13 |  | BI.15 | // | SPARE |  |  | - | ----- | 14 |  |  |  |  |  |  | + | ----- | 15 |  | BI.16 | // | SPARE |  |  | - | ----- | 16 |  |  |  |  |
| SHT.219/D4                          | {  | +              | -----                                | X31      |                       | BI.01               | //   | CB CLOSED          |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 1        |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| SHT.219/D4                          | {  | +              | -----                                | 2        |                       | BI.02               | //   | CB OPEN            |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 3        |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| SHT.219/D5                          | {  | +              | -----                                | 4        |                       | BI.03               | //   | BF START BY<br>GP1 |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 5        |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| SHT.219/D5                          | {  | +              | -----                                | 6        |                       | BI.04               | //   | VT MCB TRIP        |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 7        |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| SHT.219/D6                          | {  | +              | -----                                | 8        |                       | BI.05               | //   | 86C-2 OPTD         |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 9        |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| SHT.219/D6                          | {  | +              | -----                                | 10       |                       | BI.06               | //   | 86BF OPTD          |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 11       |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| SHT.219/D7                          | {  | +              | -----                                | 12       |                       | BI.07               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 13       |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| SHT.219/D7                          | {  | +              | -----                                | 14       |                       | BI.08               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 15       |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  |                |                                      | 16       |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  |                |                                      | X32      |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | +              | -----                                | 1        |                       | BI.09               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 2        |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | +              | -----                                | 3        |                       | BI.10               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 4        |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | +              | -----                                | 5        |                       | BI.11               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 6        |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | +              | -----                                | 7        |                       | BI.12               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 8        |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | +              | -----                                | 9        |                       | BI.13               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 10       |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | +              | -----                                | 11       |                       | BI.14               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 12       |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | +              | -----                                | 13       |                       | BI.15               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 14       |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | +              | -----                                | 15       |                       | BI.16               | //   | SPARE              |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
|                                     |  | -              | -----                                | 16       |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| D                                   |  |                |                                      |          |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| E                                   |  |                |                                      |          |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| F                                   |  |                |                                      |          |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| G                                   | <table><tr><td colspan="3">AS-BUILT BY _____ DATE _____</td><td colspan="2">CONTRACT NO. 11131113/00</td><td colspan="2">JOB ORDER NO. S-13656</td><td colspan="3">BLOCK REFERENCE -GP2</td></tr><tr><td colspan="3">01</td><td colspan="2">13 48</td><td colspan="2">AS MANUFACTURED</td><td colspan="3">DRAWN BY RIZ CHECKED BY KVR</td></tr><tr><td colspan="3">00</td><td colspan="2">13 04</td><td colspan="2">FOR APPROVAL</td><td colspan="3">DATE STARTED 24.01.2013 DATE COMPLETED _____</td></tr><tr><td colspan="3">REV. NO.</td><td colspan="2">DATE</td><td colspan="2">DESCRIPTION</td><td colspan="2">OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC</td></tr></table> <table><tr><td colspan="3">13.8kV CAPACITOR BANK-1 PROT. PANEL</td><td colspan="3">S/S 8709-132/13.8KV IN AL-KHARJ CITY</td><td colspan="3">RIYADH SAUDI ARABIA</td></tr></table> <table><tr><td>INDEX</td><td>PLANT NO.</td><td>DRAWING NUMBER</td><td>SHEET NO.</td><td>REV. NO.</td></tr><tr><td>P</td><td>C421</td><td>CD-322952</td><td>SHT 603<br/>CONT. 604</td><td>01</td></tr></table>  |                |                                      |          |                       |                     |  |                    |   |    | AS-BUILT BY _____ DATE _____ |   |   | CONTRACT NO. 11131113/00 |     | JOB ORDER NO. S-13656 |       | BLOCK REFERENCE -GP2 |           |  | 01 |   |       | 13 48 |  | AS MANUFACTURED |  | DRAWN BY RIZ CHECKED BY KVR |            |   | 00 |       |   | 13 04 |       | FOR APPROVAL |         | DATE STARTED 24.01.2013 DATE COMPLETED _____ |  |   | REV. NO. |   |  | DATE |  | DESCRIPTION |            | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC |   | 13.8kV CAPACITOR BANK-1 PROT. PANEL |   |  | S/S 8709-132/13.8KV IN AL-KHARJ CITY |    |                    | RIYADH SAUDI ARABIA |  |   | INDEX | PLANT NO. | DRAWING NUMBER | SHEET NO. | REV. NO. | P | C421       | CD-322952 | SHT 603<br>CONT. 604 | 01    |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| AS-BUILT BY _____ DATE _____        |  |                | CONTRACT NO. 11131113/00             |          | JOB ORDER NO. S-13656 |                     | BLOCK REFERENCE -GP2                         |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| 01                                  |  |                | 13 48                                |          | AS MANUFACTURED       |                     | DRAWN BY RIZ CHECKED BY KVR                  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| 00                                  |  |                | 13 04                                |          | FOR APPROVAL          |                     | DATE STARTED 24.01.2013 DATE COMPLETED _____ |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| REV. NO.                            |  |                | DATE                                 |          | DESCRIPTION           |                     | OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC         |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| 13.8kV CAPACITOR BANK-1 PROT. PANEL |  |                | S/S 8709-132/13.8KV IN AL-KHARJ CITY |          |                       | RIYADH SAUDI ARABIA |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| INDEX                               | PLANT NO.  | DRAWING NUMBER | SHEET NO.                            | REV. NO. |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |
| P                                   | C421   | CD-322952      | SHT 603<br>CONT. 604                 | 01       |                       |                     |  |                    |   |    |                              |   |   |                          |     |                       |       |                      |           |  |    |   |       |       |  |                 |  |                             |            |   |    |       |   |       |       |              |         |  |  |   |          |   |  |      |  |             |            |                                      |   |                                     |   |  |                                      |    |                    |                     |  |   |       |           |                |           |          |   |            |           |                      |       |   |  |       |    |             |  |  |   |       |   |  |  |  |  |            |   |   |       |   |  |       |    |            |  |  |   |       |   |  |  |  |  |            |   |   |       |    |  |       |    |           |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |            |   |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |   |  |  |  |  |  |  |   |       |   |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |  |  |   |       |    |  |       |    |       |  |  |   |       |    |  |  |  |  |

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